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ABSTRACT

The nine author contributed chapters are intended to provide a basic introduction to the rationale and processes of mainstreaming handicapped children. The first paper, "The Whys and Hows of Mainstreaming" by T. Tice, provides a philosophical examination of the basic principles of P.L. 94-142, the Education for All Handicapped Children Act, and its counterparts in Canada and England. In the second chapter, "Mainstreaming and the Myth of Equality," K. Okun examines the historical exclusion of handicapped pupils from general education classes, the rise of special education, and issues that arise when equal educational opportunities are sought for all children. Next, C. Vergon and J. Ross consider "Educating Handicapped with Nonhandicapped Children--The Legal Foundation for the Least Restrictive Environment Concept" through a summary of the law's terms and provisions and the possibility of a national policy on education for handicapped persons. R. Jones, et al. examines the potential for modifying attitudes of school personnel toward mainstreaming and suggest directions for future research in the area of attitudes and attitude assessment in their paper entitled "Attitudes and Mainstreaming--Theoretical Perspectives." M. Trippe and L. Choksey in "Accessibility and Barrier-Free Design" stress architectural accessibility as a life span developmental need of the general population as well as the handicapped. "What We Know About Mainstreaming from Experience" by N. Zigmond and J. Sansone gives a description of different mainstream arrangaments and the necessary conditions for success. R. Bruininks and V. Bruininks look at institutionalized children and youth and the educational responsibility of their local school districts in a paper entitled "Deinstitutionalization--Implications for Special Education." The last two chapters stress practical aspects of mainstreaming. They are: "Organizing the School's Social Structure for Mainstreaming" by D. Johnson and R. Johnson and "Self Management in Classrooms--Implications for Mainstreaming" by G. Markel. (DB)

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Mainstreaming:

Our Current Knowledge Base

Percy Bates

Editor

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FOREWORD

The changes now occurring in school programs for exceptional students are based essentially on three principles: (a) that all children, regardless of condition, have a right to free and appropriate education; (b) that all children, regardless of condition, are capable of learning, and (c) that all children should receive their education while they attend regular schools and remain with their own families, to the maximum extent feasible. The judicial basis for the first principle is ably outlined in this volume in the chapter by Vergon and Ross. The first and second principles, and their relationships were summarized by Thomas Gilhool, the attorney for the plaintiff in the landmark PARC case, as follows:

> The factual argument for right to education was equally straightforward. It rested on the now clear proposition that without exception, every child, every exceptional child, every retarded child, is capable of benefiting from an education. There is no such thing as an uneducable and untrainable child. To put it another way, for example, for every 30 retarded children with a proper program of education and training, 29 of them are capable of achieving self-sufficiency, 25 of them in the ordinary way in the market place and 4 of them in a sheltered environment. The remaining 1 of every 30 retarded children is capable, with a proper program of education and training, of achieving a significant degree of self-care. (Gilhool, 1976, p. 18)[1]

The third principle, known as the "least restrictive environment" or mainstreaming principle, is the main subject of this volume.

These three principles have become the basis of a new public policy of education that exists independent of any specific federal or state legislation. Even if the federal funding for Public Law 94-142, The Education for All Children Act of 1975, were to be curtailed or eliminated tomorrow, local school districts still would be obligated to seek out all handicapped children, and to provide them with appropriate education and related services in the least restrictive environment. This least restrictive alternative, the practice that is known popularly as mainstreaming, has been tested in the nation's lower courts and affirmed again and again.

The disabilities most often found in the children who are mainstreamed in regular classrooms are mild to moderate mental retardation, learning disabilities, and behavior problems. In many cases, the problems are functional rather than organic and responsive to sensitive educational programing. It is widely recognized by all educators that even when separate special education classes for handicapped children flourished in the nation's schools, some children with learning and behavior problems still were part of regular education classes because there never were enough special education classrooms to go around. Such children often were neglected, it is sad to say, because teachers often did not know how to teach them or received too little support in their efforts to do so. Today, however, such excuses are no longer possible. Teachers have at their disposal a wider range of instructional techniques to use with children who are "different" and more "supports" than were ever available before. These are not discussed in this collection of papers but can be found in the ever-growing literature on the subject.

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[1] T.K. Gilhool, Education: An inalienable right. In F.J. Weintraub, A. Abeson, J. Ballard, & M.L. Lavor (Eds.), Public policy and the education of exceptional children. Reston, VA: The Council for Exceptional Children, 1976, 14-21.

The purpose of this book is to provide a basic introduction to the whys and processes of mainstreaming. Many teachers and the college professors who help to prepare them have been thrust into new roles relating to mainstreaming without ever having opportunities to examine the origins and implications of new concepts. Indeed, both the literature and the practice of mainstreaming have stressed the expediencies of immediate implementation of new policies. It is past time for a more penetrating examination of the underlying ideas. I hope that this book will be read profitably by teachers who already are serving children with learning and behavior problems in their classrooms and by students in colleges and departments of education who are preparing themselves to become professional teachers. Perhaps even more, I hope that the volume will be useful to teacher-educators who bear responsibility for the preparation of the next generation of the nation's teachers.

Maynard C. Reynolds, Director
National Support Systems Project
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Introduction

The Passage of Public Law 94-142 presented in formal language the concept technically known as the least restrictive environment (LRE) and commonly referred to as mainstreaming. The law's new dimensions created considerable controversy over the concept. Some provisions were quite specific but considerable vagueness surrounded that of LRE. It simply stated that handicapped students should be served with nonhandicapped students "to the maximum extent approprtate." The intent of this statement is relatively clear but the procedures for carrying out the intent are not. Many questions have been raised about a "least restrictive environment and about what "to the maximum extent appropriate" means. The attempts to answer the questions have generated much confusion in the educational process for handicapped students and, in some instances, near panic for teachers and teacher educators. Efforts to put the LRE concept into practice have brought an array of reactions ranging from calls to dismantle the law to positive acceptance and the development of what seems to be workable procedures. Unfortunately, little time has been expended to date on either research or policy clarification that might reduce the level of confusion and dismay. Often, when lack of clarity and confusion surround an educational issue, the thrust is not toward seeking clarity but toward the reduction of dissonance through avoidance. This is not to imply that there have not been many honest efforts to effectuate mainstreaming but, by and large, that the efforts have been scattered and diffused.

Before we proceed further with the least restrictive concept (mainstreaming), a serious attempt must be made to clarify the ambiguities in the law that are related to this issue and to expand our knowledge base for mainstreaming: What is it? How should it be conducted? Is it worth the time and energy?

The volume presented here was undertaken to assess where we are with mainstreaming, to review in some detail what we already know about the concept and, in some instances, to suggest where we should go from here. The process of integrating handicapped students into regular classrooms with nonhandicapped peers is not new. Mainstreaming has been known for many years by other terms: integration, selective inclusion, and progressive inclusion, for example. Many regular and special education teachers can boast that they have been integrating handicapped students in regular classes for many years, and long before the practice was called mainstreaming. In fact, many think that it was attaching a name to the process that created problems.

Although it is true that considerable mainstreaming was going on before Public Law 94-142, it is equally true that the practice was not organized or systematic. Those earlier mainstreaming efforts often were carried out at the pleasure and convenience of regular and special education personnel; they were not predicated on the rights of students. Granted that those exercises were worthwhile in that they proved the feasibility of mainstreaming, nevertheless most of them were carried out as hit or miss arrangements.

The inclusion of the least restrictive environment principle in Public Law 94-142 is based on the right of handicapped students to be educated with nonhandicapped peers when the arrangement is appropriate for the disabled students, not at the pleasure and convenience of teachers. In addition, successfully carrying out the principle requires school districts to provide or have available a full spectrum of service delivery systems that range from self-contained classrooms to full-time mainstreaming. A systematic approach to mainstreaming is generally helpful to handicapped students, but the law's wording is far from specifying what a smooth and effective method comprises. This lack of clarity creates some problems but it is also fair to say that the attitudes of educators and some active as well as passive resistance also interfere with the programming of effective mainstreaming.

I hope that the chapters presented here will be helpful for the clarification of some ambiguities surrounding the least restrictive environment (mainstreaming) and will provide new perspectives on mainstreaming for all educators.

Organization of the Material

Chapter One is a philosophical examination of some of the basic principles of Public Law 94-142 and of its counterparts in Canada and England. Mainstreaming is not peculiar to the United States.

The second chapter focuses on the dissonance surrounding attempts to carry out the provisions of the law in the context of the older concept of the common school. By examining the historical exclusion of handicapped pupils from general education classrooms and the concomitant rise of special education, Okun is able to identify the issues--sometimes clashing--that arise when equal educational opportunities are sought for all children.

Vergon and Ross analyze the legal bases for the least restrictive environment concept and summarize the origins of many terms and provisions related to Public Law 94-142. In addition, they discuss the possibility of a national policy on education for handicapped persons.

Jones and his associates delve into the intricacies of attitudes and attitude change. Starting from reviews of research, they examine the potential for modifying attitudes of school personnel toward mainstreaming and suggest directions for future research in the area of attitudes and attitude assessment.

Trippe and Chokesey survey architectural barriers to full participation in community activities. From their perspective, architectural accessibility is a life-span developmental need of the general population. The authors end their chapter with a bibliography for readers who need specific information on accessibility.

Zigmond and Sansone describe different mainstream arrangements and discuss the necessary conditions for success. They also outline changes in the educational system that will be necessary if mainstreaming is to be successful.

Bruininks and Bruininks call attention to a special population of handicapped children and youth who, heretofore, have been "out of sight and out of mind," that is, who have been institutionalized. As a result of the mainstreaming movement, they have been brought out of the institutions into smaller, more home-like living arrangements in communities. Whether handicapped children are in or out of institutions, their "appropriate" education is the responsibility of the local school districts in which they reside.

The last two chapters by Johnson and Johnson and Markel are very practical discussions of how to manage the inclusion of handicapped children in regular classrooms, the first through social reorganization of the classroom for cooperative learning, and the second, through the use of self-management techniques for the control of disruptive behavior. It is apparent, in both chapters, that the suggested techniques can benefit nonhandicapped students as much as those who have disabilities.

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The Whys and Hows of Mainstreaming: A Philosophical Critique

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University of Michigan

Suppose the state decreed that all sorts of odd people had the right to spend every evening in your living room. Or suppose that you had been neglected and shunted aside for many years and suddenly the powers that be placed you under the care of people who had no real appreciation of your needs. Or suppose that you had worked for a long time to provide a special environment for certain young people and their friends and the federal government said that such places were no longer legal. Or suppose that you were running a business and the current regulations required the retraining of your entire work force for a variety of new functions but only a few dollars a week were allotted for the purpose. How would you feel? Affronted? Frustrated? Perhaps outraged?

The preceding attitudes, no doubt often generated by inadequate understanding, have been voiced by some participants in the educational drama created by The Education for All Handicapped Children Act of 1975, Public Law 94-142.[1] This statute mandates the integration of children and youth with sensory, physiological, and intellectual disabilities into the mainstream of public school education and authorized funding to the states, which could rise to $3 billion a year by 1982, to carry out the mandate. Of course, the provisions of the statute and the federal rules and regulations issued in 1977 have not necessitated overt measures so hopelessly extreme as the suppositions with which this chapter opens, but some

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[1] Inasmuch as much of this chapter focuses on Public Law 94-142, it should be noted that at the time of publication the future of the law in the Congress was uncertain.

may come close. The unfounded fantasies about mainstreaming handicapped children and youth are real enough to the people who hold them.

Public Law 94-142 is an extraordinary once-in-a-generation law. Its challenges threaten to unsettle many deeply entrenched educational habits and to tamper with many delicate social adjustments. But they also hold out a promise to millions of parents and their handicapped children that new kinds of help and support are on the way. How are the deeply humane and proper intents of this law to be fulfilled, then? Can they be? What would it take? But first, what does the law itself mean? A critical analysis of the basic principles of Public Law 94-142, as stated or implied, is presented in this chapter. My theses are as follows:

1. The statute is essentially a human rights document.
2. Several long-vexing conflicts over educational aims and processes will be heightened if this law is taken at all seriously, which it must be.
3. Learning how to work with the conflicts is one of the most important changes likely to be laid on this or the next generation of educators.
4. Certain resolutions are already demanded or implied by the legislators' intentions in enacting this law.
5. Some of these resolutions can be heartily endorsed but others seem to be as yet ill-thought-out and imminently dangerous.

The Background: An Unfinished Revolution

The Setting

Pursuant to the 1975 legislation, the National Advisory Committee on the Handicapped (NACH) was formed that year and began to submit annual reports interpreting the intent of Congress and making recommendations for the administration of the law (see NACH 1975, 1976, 1977). Inasmuch as almost all the recent literature on the subject has assumed, intentionally or not, the terms set by these reports, the background observations presented here are derived principally from them.

NACH reported that some 8 million persons aged 0-19 are affected by Public Law 94-142, that 45 per cent "do not receive an education comparable in quality and comprehensiveness to that offered to nonhandicapped youngsters," and that one million "are denied education altogether" (NACH, 1976, p. 18). Actual program adequacy may well be the experience of less than 45 per cent. When we compared these figures with the over-60-per cent neglect rate of 1969 and the nearly 90 per cent neglect rate of the late 1940s, we see that the succession of court actions and state and federal legislation since the mid-1960s, largely in response to consumer actions, has markedly increased educational opportunities for disabled persons. Public Law 94-142, if it is adequately funded and administered, is a gargantuan breakthrough in education for these people.

The most important principle of the law, according to NACH (1976) is that education for all handicapped children and youth is a "fundamental right" (p. 6), one, moreover, that may not be abridged for lack of funds or determined other than in a way "geared to [the children's and youth's] particular needs and aspirations" (p. 1). As a matter of right, these persons are to be generally treated in both schools and society "not on the basis of their disabilities but on the basis of their worth as human beings" (NACH, 1976, p. 7). Public Law 94-142 was given no expiration date, unlike most education legislation. It is the expression of a basic public commitment, one that is not expected to be changed or diminished to the end of time. As such it is "an unfinished revolution" in human rights (NACH, 1976; Weintraub & Abeson, 1976). The single most important indicator that the revolution is working, therefore, will be a change in public attitudes toward handicapped persons (NACH, 1976, p. 15).

The chief aim of the law is to end the unnecessary isolation of handicapped persons from society at large by first placing them, as children and youth, in educational environments which are "least restrictive" according to their needs and potentials, and then providing them with supportive services in those environments. This is the principal meaning of the otherwise misleading and elusive term "mainstreaming," although it is far from the total meaning of the mandated program itself.

Major Principles

Several major consequences, which are implicit in the NACH recommendations, flow from the perspective of basic human rights which NACH drew from the language of Public Law 94-142:

1. Although the special focus is on the traditional years of public schooling, publicly facilitated care should begin at birth and extend for some individuals beyond the age of

21. Additional emphasis therefore is placed on preschool programs, career and vocational programs, and development of life-long learning concepts.

2. A carefully developed and monitored individualized educational program (IEP) is provided for in Public Law 94-142; it is essential to the success of mainstreaming efforts with handicapped children and youth. The IEP is seen by NACH as reflecting a general trend in education and as a superior teaching practice. Achieving competency in writing IEPs and accepting accountability for them requires the massive retraining of current personnel, the employment of new advocate-specialists, the initiation of unaccustomed modes of cooperation between schools and families. Three or more planning conferences a year of the concerned persons are recommended for each child. The IEP is not a binding contract but, rather, an instructional plan, designed cooperatively, that meets a handicapped student's educational needs at a particular time. IEPs are essential for successful mainstreaming.

3. Physical education and experience with arts and crafts will play a prominent role in enabling handicapped persons to reach out to others and to become active participants in their communities. I see NACH's view as significantly limited in this respect in that its rationale for such involvement is explicitly based on only two concepts: (a) development of recreational and leisure-time skills and (b) reaching out. I would add two more: (c) wide-ranging, creative activity throughout all the educational process, as mediated especially through the arts and crafts, and (d) reaching nonhandicapped people as well to help them to recognize that they have much to gain from participation in education and other societal activities with handicapped persons. My two additions are consistent with NACH's concern for the education of the "whole child."

4. Placement of handicapped with nonhandicapped students is to occur "to the maximum extent possible," according to the statutory language. Contrary to the popular image, most disabled students are able to fit into such placements without major adjustments, according to NACH. The chief danger would reside in our failure to retain and develop complementary facilities for mentally retarded, speech and hearing impaired, visually handicapped, emotionally disturbed, and orthopedically and other health-impaired students, as well as for those with specific learning disabilities (who need them), who are all termed "handicapped" in the statute (sec. 602). Another danger lies in our adopting a "dumping" procedure rather than following the principle of placement according to the least restrictive environment. The only educationally sound and humane program is one that builds open, effective communi-

cation and community. Such a program is not achieved by simply inserting new participants into a classroom with no regard for the effects on the total human ecology of that classroom.

5. Occasionally in the Congressional debates and the NACH reports we see "the child" included among the persons who would set short- and long-term objectives and who would develop, evaluate, and revise the IEP for "the child." I would like to raise this minor theme to a major one. We are talking about the education of human beings; as such the process is not strictly "for the child" (the usual language) but is one in which the person chiefly involved must be an active, initiating, sharing participant. Otherwise, in my view, it is not education at all but mere training or, worse, a process in which a human being is made solely a passive object of externally enforced authority.

A comprehensive philosophy of mainstreaming will include each of the preceding features, all of which are derived from a fundamentally moral concept of human right for which this society was deemed ready by the Congress. More is said about this essential notion in due course.

Canada: A Judicial Mandate

In two other countries, Great Britain and Canada, similar mainstreaming moves are underway. A landmark decision by the Supreme Court of Canada on August 11, 1978, provided, in a test of secs. 136 and 138 of the School Act, that all children (in this case including a 9-year old with cerebral palsy) have a right to places in school or school programs in the districts where they live or to schooling elsewhere, which is paid for by the government. An absence from school of one year or longer, moreover, was deemed to be an unacceptable time span for finding a suitable program for a child (Cruickshank, 1978). This judicial ruling is far from the legislative mandate of Public Law 94-142; it sounds like U.S. court decisions in the 1960s and 1970s that supported the rapid development of special education facilities here. However, the grounding in principle is similar.

Great Britian: On the Way

In 1974, the British Parliament commissioned a study of "special educational needs" headed up by philosopher Mary Warnock. Although few philosophical principles are enunciated in the 430-page final report (Warnock, 1978), several are presupposed throughout. The following quotation indicates a human rights attitude which is similar to that of U.S. documents:

> Why educate such children at all?.... Our answer is that education, as we conceive it, is a good, and a specifically human good, to which all human beings are entitled. There exists, therefore, a clear obligation to educate the most severely disabled for no other reason than that they are human. No civilised society can be content just to look after these children; it must all the time seek ways of helping them, however slowly, towards the educational goals we have identified....
>
> Moreover there are some children with disabilities who, through education along the common lines we advocate, may be able to lead a life very little poorer in quality than that of the non-handicapped child, whereas without this kind of education they might face a life of dependence or even institutionalisation. Education in such cases makes the difference between a proper and enjoyable life and something less than we believe life should be. From the point of view of the other members of the family, too, the process of drawing a severely handicapped child into the educational system may, through its very normality, help to maintain the effectiveness, stability and cohesion of the family unit....
>
> Those who work with children with special educational needs should regard themselves as having a crucial and developing role in a society which is now committed, not merely to tending and caring for its handicapped members, as a matter of charity, but to educating them as a matter of right and to developing their potential to the full. (pp. 6-7)

The British report includes learning disabilities among the handicaps of "children and young people with special educational needs," and the authors estimated that one in five or six students suffer the disability at some time in their school careers. The focus of the Warnock report is emphatically not on "special" set-apart services but on "any form of additional help" (pp. 6, 46). The goals of education are assumed to be applicable to all children and youth. Therefore the report recommends a program extending from preschool into adulthood, including, for some persons, "significant living without work" (p. ix); special emphasis is given to early childhood education and to concern for young people aged 16 and over. The report retains the concept of special classes and units but also recommends that wherever possible they be "attached to and function as part of ordinary schools" (p. 345).

No doubt reflecting the different cultural setting and the more restricted carrying capacity of educational institutions in the British Isles, the styles of planning and participation dicussed in this landmark report fall short of those proposed for U.S. schools. In the following respects, however, similar conclusions are drawn from the human rights base; for example, the report recommends close cooperation between parents and professionals, roles for voluntary organizations, establishment of new training programs, abolition of statutory categorization (labeling), the distinction between special and remedial services, institution of a finding and assessment process, administrative monitoring of school units several times each year, dissemination of child development information, increased nursery school education along with "playgroups" and "opportunity groups," and employment of persons to work with parents in the education of children under age 5.

The Current Challenge

The striking difference between U.S. and British or Canadian schools is that most handicapped children in the U.S. already were "mainstreamed," although often extremely inadequately, when other facilities were not available. Nothing in the new statute, moreover, is a protection against giving less attention to the some 1.5 million mentally retarded children because of the high value our society, like that of Canada and of Britain, gives intelligence (Sarason & Doris, 1978, p. 21). It is conceivable, even probable, that given the values that now predominate in American society we would devote far greater resources to the 300,000 crippled and health-impaired persons, those with relatively minor learning and speech disabilities, and those among the some 500,000 visual or hearing impaired persons who already function best, than to "the least among us."

Edwin Martin, formerly, Chief of the Bureau of Education for the Handicapped, pointed out that "a whole underlying structure of assumptions" has led to our treating disabled people as we do (Martin, 1978, p. iv), that is, as if they were different *kinds* of human beings. Clearly, it will take another set of assumptions to move us away from conventionally restrictive, punitive, neglectful policies and practices. It would be particularly fruitful, I think, to consider two kinds of assumption: (a) that of understanding and intention and (b) that of selecting, in each case, the appropriate "social medium." John Dewey put the matter as follows in 1915:

> Beliefs and aspirations cannot be physically extracted and inserted. How then are they communicated?....
>
> The answer, in general formulation, is: By means of the action of the environment in calling out certain responses. The required beliefs cannot be hammered in; the needed attitudes cannot be plastered on. But the particular medium in which an individual exists leads him to see and feel one thing rather than another; it leads him to have certain plans in order that he may act successfully with others....(p. 11)
>
> ...the only way in which adults consciously control the kind of education which the immature get is by controlling the environment in which they act, and hence think and feel. We never educate directly, but indirectly by means of the environment. (pp. 18f.)
>
> ...The very existence of the *social medium* in which an individual lives, moves, and has his being is the standing effective agency of directing his activity. (p. 27; italics added)

In reality, the two kinds of assumption must overlap and interact. Presupposing that they are not actually separable, each is developed in turn here.

The Major Rights Issues:
What Do We Value? For Whom?

The United Nations' "Universal Declaration of the Rights of Children" lists the right to education as fundamental and inalienable. Public Law 94-124 extends the meaning of that right in the establishment of policies which few other societies could adopt today. As social conditions improve, not only may the list of assumed human rights and attendant legal and institutional rights be lengthened but the interpretations of these rights also may be expanded. Along with social security and other health and welfare policies and related educational policy, the mainstreaming concept presents one of the major expansions of a perceived "right" in this century. Having moved over the past 100 years from a privilege for the few to a privilege for many to a right for many, free public education during childhood and youth has gradually come to be imbedded in social policy as a right for all.

Our society is still moving, albeit slowly, from a haltingly enunciated ideal to a full-fledged commitment to the welfare of its children and youth, as information collected for the 1979 International Year of the Child plainly shows (Report to the President, 1980). A similar commitment to the world's children appears to lie much further down the road though it is entailed in the very concept of a fundamental human right. From a philosophical perspective, the significance of the mainstreaming movement nevertheless lies as much in its global promise as in its current national reference.

Like busing and affirmative action, most provisions for according handicapped persons a fundamental right to education are actually derivative legal or institutional rights. The IEP, planning conferences, and the like are derivative rights and not human rights as such. A. I. Melden (1977) recently emphasized that what ordinarily establishes one's claim to consideration as a human right is one's first being human, having a need to be cared for and protected, then gradually, variously, entering into personhood, coming to be a moral agent among others insofar as possible, joining in their lives, "first within the family circle and later with friends, acquaintances, and strangers" (p. 66) more and more in a mutually supportive fashion. Taken in this sense, Melden regarded the right of persons to fashion their own lives, pursue their interests, and thereby enjoy their goods (pp. 167,

185) to be the fundamental human right, and the provision of moral community to be its fundamental condition. Thus, for Melden, even the right to an education can be presumed to be for the most part a special, derivative right, except that for the young "the right to a moral education without which they cannot achieve moral agency" (p. 184) is also part of the fundamental human right. I find Melden's position relatively more sensitive to human realities than many other current discussions of rights, especially those that strictly depend on a utilitarian calculus to determine moral and social values. Therefore, Melden's position is to be heartily recommended. What follows from his position is the consequence "that any person, even the most advantaged and the most powerful in the influence he exerts over others, is accountable to the lowliest and most disadvantaged for any infringement or violation of the latter's rights as a human being" (Melden, 1977, p. 194; see also p. 249), and, therefore, "special burdens [are] imposed upon the advantaged, because of the human rights which the disadvantaged have in common with them" (p. 250).

The mainstreaming concept represents the moral burdens imposed on American society--or on any society that could develop the requisite means--by virtue of the existence of handicapped individuals in its midst. That is why Public Law 94-142 is of such moment. In a strictly moral sense, handicapped children and youth always have possessed the right to an education which would enable them to develop their interests and potentials, but until recently, the right has rarely been accorded, legally or in practice. The plight of these young people and the guilt of the citizenry and its officials now stand out because in its legal garb public morality in America has come around to the commitment of means to protect the rights of these children and youth. But the achievement is not without conflict.

In the first place, the policies incorporated in education legislation are an amalgam of liberal and conservative sentiment. According to a perspicacious account by Ronald Dworkin (1978), the constitutive political morality of liberalism supposes that in providing for social equality "political decisions must be, so far as is possible, independent of any particular conception of the good life, or of what gives value to life." That of conservatism supposes that " the content of equal treatment cannot be independent of some theory about the good for man or the good of life, because treating a person as an equal means treating him as the good or truly wise person would wish to be treated" (p. 127). On this account, a hard question follows for mainstreaming decision makers, namely, what derivative policies and procedures flow from each position, and can they be conjoined? To my mind, the legislation is mercifully silent on the issue of what is "good" in more than the broadest terms, deferring treatment of that issue to the communities concerned. The irony is that as those communities fail to handle the values conflicts intelligently and well, as will inevitably occur from place to place, further legislative and judicial action will be required. Meanwhile, as in other civil rights arenas, those to whom the right has been legally accorded will have to wait until others are ready or are forced to give them their due.

In the second place, there are conflicts among a wide spectrum of operative values. The following questions--each of them both moral and legal, both educational and political--exemplify these conflicts. What mixture of public vs. private action is desirable? Is our primary aim to be that of responding to outright entitlements or must the handicapped and their advocates struggle to have their interests served? How are we to attain adequate services and equitable distribution at the same time, or can we? Shall we let the educational market determine process or shall we plan? What are we to leave to the family and what are we to provide, regardless of the family's means and interests? How are we to fulfill both the principle of freedom and the principles of justice and equality? Which of these principles overrides the others, and under what conditions?

Social decisions ordinarily, perhaps even necessarily, occur as a composite of divergent sets of values, such as those implied in the preceding questions. Usually, there are several rather than just two sets and they, in turn, reflect not only different ideologies but also different sorts of conflict within each ideology. To the degree that decision makers are in the dark or choose to ignore the values-conflicts operative among them, they are likely to falter and fail, particularly within complex social structures such as ours.

I am not supposing that we must, or even can, give a full rational account of all our choices. In his writings, Stuart Hampshire (1978) beautifully demonstrated the practically unnoticeable habits and perceptions that often enter into our ways of making moral decisions; he recognized that these features have accrued and become "internalized" over long periods, often retaining a basically conflictory character. Recently, he also rightly emphasized that "it is of the essence of moral problems that on occasion they seem hopeless, incapable of solution, leaving no right action open" (p. 40), and that for an individual there may be, in fact, no clearly coherent way out. In such cases the individual may resonably seek a trade-off, may simply choose one way over another or make some other intuitive adjustment, perhaps by some rare leap of imagination. In public decision making, however, we require reasons to be given to the degree possible and expected consequences to be specified so that we may be held accountable for our decisions and our corresponding use of power. This is why conflict awareness and resolution are so important in educational decision making.

What I have been leading up to is the recognition that in the establishment of an initial set of policies in Public Law 94-142 the work of moral and educational decision making has only just begun. For the most part, the lawmakers have wisely withheld laying down exactly what we must do but have opened tha way for the development of a complex community of decision makers, including the handicapped themselves. Therefore, no one can rightly interpret the full intent or extent of the law at this point. It is not so much the product of the lawmakers' deliberations which must be interpreted as it is the processes that their guidelines and the subsequent regulations entail. These processes are themselves essentially educational in form, educational with respect not only to instructional procedures but also to administrative and planning procedures.

The Primary Social-Educational Problems: Who is Responsible? to Whom? and How?

We educators already have more to do than we can handle. There have been more starts at major education-related reform over the past 20 years than can be counted on two sets of hands and feet, and neither we nor others in the society have yet learned how to manage them all. The reason is that although funding for education has increased greatly over that period, other social and economic structures have not changed apace and the reforms are grossly inadequate responses to the needs. Nor has graduate training for educators made us into the extraordinarily skilled, knowledgeable, sensitive professionals those in our charge need us to be; nor will the change occur until the society demands it of us and shares the cost.

America has become preeminently a learning society. We have the greatest educational resources in the world; in fact, soon they may be considered our greatest resources, our greatest potential for export. Yet the understanding of educational processes that pervades our social institutions and our schools is in many respects backward compared both to our needs and to what is known about the growth processes of human beings.

Apart from the challenge of desegregation, I cannot think of any challenge that should by rights spur us to greater soul searching and reflection than this newest among our many causes. As a company of educators we shall have to become better planners, more effective collaborators, professionals more deeply knowledgeable about the developmental tasks of children and young people, and researchers far more responsive to the richness of human nature, than has been our custom. We shall have to become more cunning practitioners of the teaching art, more politically astute, more demanding on behalf of the rights of youngsters, and more firmly insistent, more gently patient with each other, than we ever have been if this new challenge is to be met. In short, we educators must give ourselves further education. We are not alone responsible, far from it; but we dare not leave our joint responsibility alone if this incredibly delicate promise is not to fall in shambles.

If these advances are lacking, within a short time mainstreaming may warrant the same criticisms that have been directed to attempts at compensatory education under the Elementary and Secondary Education Act (ESEA) of 1965, here outlined by Ornstein (1977):

> In general, compensatory education has been criticized for (1) its hasty planning and piecemeal approach; (2) mismanagement and misappropriation of funds; (3) unethical and corrupt grantsmen who justify their larceny on the basis that 'everyone does it'; (4) large consultant fees for shoddy work or for work not done at all; (5) inadequately trained personnel at the state and local level; (6) high salaries for people at the administrative levels; (7) disregard for and lack of teacher participation; (8) vague objectives; (9) poor evaluation procedures; and (10) little change in the quality or content of the programs--only increased quantity of services. Critics have characterized compensatory funding as having a reputation for scattergun approaches, and poor results. In effect, the whole ESEA movement seems to have undermined America's blind faith in education and in educators. (p. 8)

Many educators are ready; they simply have been waiting and working for the opportunity. Parents and poliiticians can expect even them to fail, however, if the necessary provisions are not made. What should the provisions be?

In their June 1978 statement, the AACTE board of directors made an appeal for the following principles to be applied to all students, not just to a neglected minority, in order to meet the Public Law 94-142 mandate (AACTE, 1978): first, equal opportunity, unlimited access to resources, unconditional acceptance of each student, and total responsiveness to individual differences; then, realization of each individual's potential, recognition of individual worth in multifaceted ways vs. strict competition, tying disabilities to tasks rather than viewing them as generic and exclusionary, and providing optimum learning environments for each and all as a shared responsibility among educators and other members of society. I agree. These elements are the very least that it will take. We should not be ashamed to enter the struggle of learning how, slowly and deliberately and creatively, just as we would at our best moments aid our students to learn. They are not likely to acquire new styles of learning and relationship, moreover, unless we do first.

Highly desirable teacher competencies for mainstreaming were ranked as follows by the 50 state directors of special education (Monaco & Chiapetta, 1978): individualized instruction, comprehension of the abilities of handicapped and exceptional children,and evaluation and diagnosis of students' abilities and progress. Eight other rated competencies were seen to be "generic skills that regular classroom teachers should already possess" (and shall we add administrators as well?); they are (in rank order), provides a humanly supportive environment, uses behavioral management strategies, works cooperatively with adults in the school setting, uses the psychology of learning in instruction, evaluates usefulness of various intructional strategies, interprets task analyses, evaluates the appropriateness of resources for programmatic use, and promotes the mainstreaming concept.If this list sounds a bit dry and lifeless the priorities are nonetheless instructive. Clearly they cannot be met if classrooms and teaching schedules are overcrowded, facilities are poor, professional training and support systems are inadequate, testing and evaluation procedures are discriminatory and fail to disclose students' strengths along with their disabilities, or procedures ignore culturally diverse needs. Some of the priorities cannot be met at all by relatively untrained personnel working alone. In such circumstances, it probably would be better for the students if teachers were not asked to try.

In effect, I have been advocating the consideration of what educational processes we educators must embark upon if the good intentions of mainstreaming are to be fulfilled. I briefly define education as any process of learning conducive to human growth that involves the active participation of the learner. I do not think that we can know in advance all the elements of the new situation that may require our active learning or that we can anticipate precisely how to perform this task because we are now faced with problems of unaccustomed complexity. The point is that educators must enter upon the growth-producing process itself, wide awake to our present situation, as Maxine Greene (1978) has argued, and imaginatively seek out our appropriate "landscapes of learning," as she has enjoined us to do. The point is that educators must learn to plan by also planning to learn (Michael, 1973). Greene put the notion this way:

> We all learn to become human, as is well known, within a community of

> some kind or by means of a social medium. The more fully engaged we are, the more we can look through others' eyes, the more richly individual we become. The activities that compose learning not only engage us in our own quests for answers and for meanings; they also serve to initiate us into the communities of scholarship and (if our perspectives widen sufficiently) into the human community, in its largest and richest sense. Teachers who are alienated, passive, and unquestioning cannot make such initiations possible for those around. Nor can teachers who take the social reality surrounding them for granted and simply accede to them. Again, I am interested in trying to awaken educators to a realization that transformations are conceivable, that learning is stimulated by a sense of future possibility and by a sense of what might be. (p. 3)

A very important educational principle is involved here. Remember Mary Warnock? She published two first-rate books while chairing the British commission on special educational needs. The first explicates and celebrates the power of imagination, an amalgam of emotion and reason by which we actively envisage both what is and what is not or might be, a sense that

> There is always more to experience, and more in what we experience than we can predict.
>
> Without some such sense, even at the quite human level of there being something which deeply absorbs our interest, human life becomes perhaps not actually futile or pointless, but experienced as if it were. It becomes, that is to say, boring. In my opinion, it is the main purpose of education to give people the opportunity of not ever being, in this sense, bored; of not ever succumbing to a feeling of futility, or to the belief that they have come to an end of what is worth having. (Warnock, 1976, p. 202f.)

Warnock placed the joyful exercise of imagination at the forefront of educational policy. I heartily concur in this notion and recommend it to all educators. If imagination is essential for students, then is it not all the more essential for teacher-learners and administrator-learners, parent-learners, and politician-learners?

Mary Warnock's other recent book is on educational policy itself. What does it mean, she asked, to claim that everyone has not only an equal right to education but a right to equal education (egalitarianism)? As an educational goal, she contended, it refers to "equality of opportunity for all children to grow" (Warnock, 1977, p. 34). Beyond that, she argued, it has never been clear what equal opportunity is opportunity for: if not for becoming alike, then for competing to receive the best education available? for the chance to get good jobs, prestige, wealth, social privileges? to acquire measured intelligence? to be happy? Warnock held that to withdraw the "ladder" concept contained in these views "may well be to remove hope" for many and is in any case "ineliminable from everyday thought about education." Yet it "cannot provide any answer to the kinds of questions which press upon policy makers. It cannot help to determine who shall be educated, for how long in what kinds of schools, or subject to what testing" (p. 47).

Warnock found fault with Rawls' now-famous principle of justice-as-fairness. Rawls suggested that the sole criterion for accepting differences of educational opportunity is whether the overall distribution is to the advantage of the less educated (e.g., whether the persons educated as surgeons serve the less educated). The crucial failing in this view, Warnock indicated, lies in its failure to say anything about the justice of deciding who shall have the advantage of being educated and who shall not. For her, as for me, the determining principle is one of compassion or welfare. It is not so much a passion for equality that leads us to seek opportunities for handicapped children and youth as "a sense of outrage and of pity that any children should have to live and grow up in such hopeless situations" (Warnock, 1977, p. 54).

> For the doctrine of equality, even of positive discrimination in favour of the disadvantaged, has to be stretched to breaking point if it is to be used as the justification of educational effort and expenditure on the handicapped. But the doctrine of compassion can, obviously, justify it immediately, and without distortion. If we are humane, we will recognize a duty to improve the lot of all human beings, and particularly those who are most helpless. (p. 56)

When she turned to teaching and curriculum structure, Warnock reached the same conclusion: The principle of equality does not help us much in deciding what or how to teach or how to administer the whole process. The chief criterion for Warnock appears to be what improves life as a whole, what contributes to "the good life," notably, the attainment of virtue, moral skills, capacities to work effectively, and imagination. Again, in agreeing with her I see no ground for exempting the rest of us from what we see to be good for children. Nor need we settle once and for all on what is "good" in order to provide for it in various ways.

Something like Dewey's (1915) notion of a "social medium" is essential here. Education is a highly interactive social process. We convey what is educationally "good" chiefly through the social atmosphere and structures we provide. Children come to believe not what we say but what we do, as we do it. "Mainstreaming" is an organizing image for our thought about appropriate kinds of social medium, the means by which people interact, communicate and use things for their own ends. Dewey (1915) wrote,

> The social medium neither implants certain desires and ideals directly, nor yet merely establishes certain purely muscular habits of action, like "instinctively" winking or dodging a blow. Setting up conditions which

> stimulate certain visible and tangible ways of acting is the first step. Making the individual a sharer or partner in the associated activity so that he feels its success as his success, its failure as his failure, is the completing step. (p. 14)

This idea of Dewey indicates the two-fold concept that I wish to emphasize in closing. (a) The image of "mainstreaming itself rightly points us to an open, vigorously interactive kind of social medium where policy is responsive above all to the principle of compassion, where the search for appropriate ends and means is chiefly determined by an imaginative awareness of the needs and realities of each person involved, where imagination is also directed through the very structures of our common learning to what is not familiar, to what has not yet been conceived. (b) The handicapped themselves (adults, children, young people) must be mainstreamed into the administrative and planning process; from the outset they must become active participants in the social medium through which their perceptions, habits, and modes of thought are to be formed. I do not see any other way to accomplish the intentions of Public Law 94-142.

Who is responsible? The educators, on behalf of and with the society, and persons (e.g., parents and handicapped children and youth) who are closely involved in the learning processes that mainstreaming requires. To whom are they responsible? To the children and young people of our land, all of them, and, ultimately, to all young persons everywhere. How? By learning together, as we can.

Conclusion

A quite minimal, even miniscule, requirement of social equality is met by letting people "in".Mainstreaming is mostly about what happens after handicapped persons get in. Policy makers at all levels, therefore, would do well not to concentrate so much on the first requirement that the second, much larger set of problems is ignored. I have emphasized them here.

Marilyn Rauth (1976) pointed out, perhaps rightly, that "most of the views about mainstreaming held by its proponents are based on philosophical and political considerations rather than hard data" (p. 8). I have no doubt that we could use much more hard data about the needs of handicapped children and young people and about what educational methods and environments might serve them best. It is also true that lawmakers and judges often misuse or fail to use scholarly findings. I am no less certain, however, (a) that the kinds of decisions contained in or implied by Public Law 94-142 rarely are or even can be derived from hard data (not least because they are often inconsistent, inadequate, or not responsive to important issues), (b) that both their substance and adequacy chiefly depend on judgments of value, and (c) that political assessments are inevitably an important feature in deciding among relevant values and giving them formal expression. Almost all the issues concerning the whys and hows of mainstreaming are necessarily both value laden and politically 21 lively.

References

AACTE Board of Directors. Beyond the mandate: The professional imperative--Educating professionals for educating the handicapped. Journal of Teacher Education, 1978, 29(6), 44-46. This issue contains 13 other articles on educating handicapped individuals, pp. 7-47.

Cruickshank, D.A. From boardroom to courtroom: The next battleground for the right to education. ATA Magazine, 1978, 59 (1), 16-17.

Dewey, J. Democracy and education. New York: Macmillan, 1915.

Dworkin, R. Liberalism. In C. Hampshire (Ed.), Public & private morality. Cambridge, Eng.: Cambridge University Press, 1978, 113-43.

Greene, M. Landscapes of learning. New York: Teachers' College Press, Columbia University, 1978.

Hampshire, S. Public and private morality.In S. Hampshire (Ed.), Public & private morality. Cambridge University Press, 1978, 23-53.

Martin, E. Preface. In M. C. Reynolds (Ed.), Futures of education for exceptional children: Emerging structures. Reston, VA: Council for Exceptional Children, 1978, iii-vi.

Melden, A. I. Rights and persons. Berkeley: University of California Press, 1977.

Michael, D. N. On learning to plan--and planning to learn: The social psychology of changing toward future-responsive societal learning. San Francisco: Jossey-Bass, 1973.

Monaco, M., & Chiapetta, E. L. Identifying competencies for mainstream teachers through the perceptions of state directors of special education. Education, 1978, 99(1), 59-63.

National Advisory Committee on the Handicapped, Garvin, J.S., et al. The unfinished revolution: Education for the handicapped, 1976 annual report, National advisory Committee on the Handicapped. Washington, D.C.: U.S. Department of Health, Educ[illegible] and Welfare, U.S. Government Printing Office, 1976.

National Advisory committee on the Handicapped, Wrobel, C. F., et al. The individualized education program: Key to an appropriate education for the handicapped child, 1977 annual report, National Advisory Committee on the Handicapped. Washington, D.C.: U.S. Department of Health, Education and Welfare, U.S. Government Printing Office, 1977.

Ornstein, A. Compensatory strategies for American schools. Illinois Schools Journal, 1977, 57(3), 3-18.

Rauth, M. Mainstreaming--A river to nowhere or a promising current? New York Teacher Magazine, September 12, 1976, 8.

Report to the President, United States National Commission on the International Year of the Child. Washington, D.C.: Government Printing Office, March 1980.

Sarason, S., & Doris, J. Mainstreaming: Dilemmas, opposition, opportunities. In M.C. Reynolds (Ed.), Futures of education for exceptional children: Emerging Structures. Reston, VA: Council for Exceptional Children, 1978, pp. 3-40.

Scriven, M. Some issues in the logic and ethics of mainstreaming. In M.C. Reynolds, Mainstreaming: Origins and implications. Reston, VA: Council for Exceptional Children, 1976,

Warnock, Mrs. H.M., Chairman. Special educational needs: Report of the Committee of Enquiry into the Education of Handicapped Children and Young People. London: Her Majesty's Stationery Office, May 1978.

Warnock, M. Imagination. Berkeley: University of California Press, 1976.

Warnock, M. Schools of thought. London: Faber & Faber, 1977.

Weintraub, F.J., Abeson, J., Ballard, J., & LaVor, M.L. (Eds.). Public policy and the education of exceptional children. Reston, VA: Council for Exceptional Children, 1976.

Additional Bibliography

Bates, P., West,T.L., & Schmerl,R.B. (Eds.). Mainstreaming: Problems, potentials, and perspectives. Minneapolis, MN: National Support Systems Project, 1977.

Biklen, D., & Bogdan, R. Media portrayals of disabled people: A study in stereotypes. Interracial Books for Children Bulletin, 1977, 8(6-7), 4-9.

Burch, J. Review: The integration of special education--First thoughts on Warnock. Child: Care, Health and Development, 1978, 4(6), 431-36.

Chapin, R.C. The legal rights of children with handicapping conditions and the process of mainstreaming. Peabody Journal of Education, 1978, 56(1), 18-23.

Cohen, S. Fostering positive attitudes toward the handicapped: A new curriculum. Children Today, 1977, 6(6), 7-12.

Cohen, S. Improving attitudes toward the handicapped. Educational Forum, 1977, 42(1), 9-20.

Leviton, H. The resource room: An alternative (I). Academic Therapy, 1978, 13(4), 405-13.

Markel, G. (Ed.), Proceedings of the University of Michigan institute: The impact and implications of state and federal legislation affecting handicapped individuals. Ann Arbor: University of Michigan, School of Education, 1977.

U. S. Department of Health, Education, and Welfare, Office of Education. Education of handicapped children: Implementation of Part B of the Education of the Handicapped Act, Part II. Federal Register, vol. 42, no. 163 (Tuesday, August 23, 1977), 42474-42518.

Mainstreaming and the Myth of Equality

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The Education for All Handicapped Children Act of 1975 (Public Law 94-142) was heralded as a bill of rights for children and youth with handicapping conditions. Following on the heels of numerous court decisions that delineated the right to education and equality of opportunity for those handicapped persons who previously had been denied free, public education, Public Law 94-142 is an attempt to forge those rights into a realistic set of regulations which public schools can carry out.

Yet there are problems. First, cost and resources, those chronic issues which are raised in any educational innovation, are being brought to the fore to oppose mainstreaming with an unparalleled furor (Sarason & Doris, 1978). The reality of this problem is widely acknowledged; indeed, it was recognized at the law's signing ceremony by then-President Gerald Ford when he noted that Public Law 94-142 "promises more than the federal government can deliver" (Beck, 1977, p.4). Attempts to alleviate some of the cost burdens have been a particular focus of the Office of Special Education (U.S. Department of Education), an indication of the magnitude of this issue.

Second, educators' perceptions, attitudes, and behaviors toward handicapped persons, reflecting the views of the larger society, have surfaced as a problem in the efforts to carry out Public Law 94-142 (Sarason & Doris, 1978). The clash between our ideal of unlimited human achievement and the reality of varying human potential has entangled many educators in a social and moral dilemma which has obstructed successful mainstreaming. Although

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few educators would disagree with the philosophical right to educational access for handicapped students, they are ill-equipped, in both conscience and practice, to put the rhetoric of equality into action in the schools. Rather, they are confronted with the paradox of equality, wherein the premise that all men (and women) are created equal is confounded by the recognition that some are "more equal" than others.

The historical belief that our society is composed of people who have the same potential for achievement, given equal educational opportunity, has confounded the practice of mainstreaming by ignoring the fact of individual differences. This myth of equality originated in the common school concept, which has been the foundation of the American educational system for over 150 years. The many persons with obvious physical or mental disabilities force recognition of the inappropriateness of common schooling, thus giving lie to the fundamental basis of our educational system and demanding re-examination of the basic notion that the schools can act as the great equalizer that they were designed to be.

There is examined in this chapter the influence of the historical myth of equality on the exclusion of handicapped students from schools in particular and society in general. Increasing evidence indicates that neither court orders nor financial resources are singular determinants of successful mainstreaming. If we are to provide true educational opportunity - mainstreaming - for all America's children, the two factors must be accompanied by a reordering of our educational priorities.

The Roots of the Common School

Most Americans agree that the right to education is a premise of American life, providing the opportunity for upward mobility which has come to be accepted as a societal objective. Although schooling has not always been so universally available, in either spirit or actuality, as it is today, by 1800 education was relatively widespread. This access followed an earlier era in which schooling was largely designed to complement the religious teachings of family and community. Indeed, early advocates of education were concerned largely with filling in the gaps left by family-educators whose less-than-vigilant teachings might mean eternal damnation for youngsters insufficiently indoctrinated in the spiritual way. Thus, as early as the days of Puritan communities, schools were designed to "save" children by teaching them to read the Bible (Blinderman, 1975; Hechinger & Hechinger, 1975).

In the decades following 1800, the concept of universal education was introduced by political reformers who were largely under the influence of popular philosophers. Two major reasons were advanced for the development of "common" schooling: (a) The need for an informed citizenry who could participate intelligently in a working democracy after receiving moral and academic guidance, and (b) the right to the individual pursuit of knowledge (Church & Sedlak, 1976; Cremin, 1951).

The rise of industry in the 1820s and 1830s, spurred by the influx of skilled European immigrants who became a pool of cheap labor, contributed to the first reason. In particular, the growth of urbanization, which undermined earlier notions of community responsibility for education, brought greater support for free, public education in order that children could be taught the ethics of the American Way. Underscoring this pressure was the idea that the newer members of American society were potentially less able to socialize their children in the manner to which the naturalized American population was accustomed.

Advocates of common school education understood that the concept of universal education would have to be carried out without cost to the citizenry. The smallest fee would have prevented the participation of large segments of the population, particularly the poor, urban children who, in the views of the reformers, needed schooling most. Additionally, tuition fees would have served to downgrade the sense of community which the schools sought to encourage. The use of public funds, primarily generated through taxation and state grants, was thus initiated for the purpose of schooling and gradually spread throughout the states.

Historically, there does not appear to have been a great deal of conflict over the responsibility of wealthy citizens in sponsoring common education. Common funding was seen as necessary for encouraging and supporting the democratic principles of fraternity and equality (Church & Sedlak, 1976). At the same time, during the early period of industrialization, rich and poor families often lived in the same neighborhoods, circumventing the problems of inequity in funding which now are present between most urban-suburban districts. The current imbalance has resulted in a great variance in the amount and kind of formal education to which children are exposed, which "tends to make for social stratification," an outcome the educational system had intended to minimize (Coleman, 1948, p. 41).

Cost dilemmas also are linked to the question of quality of education. Common school reformers recognized that, in addition to being free, American education had to be of high quality in order to attract children from families at both extremes of the social spectrum, otherwise rich families might forego participation, giving common schools a pauperish image. Several methods for accomplishing quality education were the development of normal schools for teacher training, bringing education as a whole under state control, and routinizing the concept of graduated learning through the introduction of grades (Church & Sedlak, 1976). By doing so, reformers hoped to achieve a kind of national educational uniformity.

It is now painfully apparent that this uniformity was never realized. What did result, however, was a persistent myth that the uniformity was being provided and that, given time and money, the variations among individuals would be wiped out. The eagerness to develop common education and the failure to recognize individual differences always have been at odds, and they continue so to this day.

These flaws notwithstanding, the concept of a free, universal, quality education is still seen as a benchmark of American freedom. For nearly 200 years, Americans have comforted themselves with the belief that the schools are a great equalizer, and that studying and hard work reap great rewards. The schools have been expected to produce a kind of homogeneity that overrides very real ethnic, cultural, and religious differences.

Ours is the only society in the history of the Western world whose second and third waves of immigrants were of different religious and cultural backgrounds than those who were already here (Higham, 1975). The experience of schooling developed as the institutionalized vehicle by which these new arrivals became Americanized. The price demanded for Americanization was no less than a rejection of past heritage and identity, a kind of "rootlessness" (Novak, 1971, p. 57). The educational system, intended to keep the melting pot aboil, did so by encouraging a mythical commonality that ignored group and individual differences, preferring to stress the prevailing Protestant ethic. It was largely ethnic demands for social recognition during the 1960s and early 1970s that initiated an era of turbulence for the common school concept.

Cynics may point out that the common school concept has been a miserable failure and, in fact, in meeting its goal of uniformity, it probably was. But the myth of equality persists because the schools have affected the lives of virtually all Americans, except those deemed ineligible for participation. In boasting the most highly educated population in the history of the world (Sarason, 1977), we must accept the fact that education has become the commonality that links all Americans. In accepting this commonality, we encourage the myth of equality, overlooking those individuals who have been tagged ineligible for equality.

Exclusion

Of course, we are aware of exclusions which have blighted the commonality of education. Various minority groups have stepped forward over the past 30 years to plead their cases before the courts, the legislatures, and even the media. The first reactions to this parade of disenfranchised citizens were disbelief, attempts to remediate, and then frustration and anger, especially with the realization that traditional remedies, fashioned out of a belief in the myth of equality, were inadequate.

Handicapped children are the latest disenfranchised group to step into the educational civil rights arena. As with other minority groups, they tend to be lumped under the stereotype of "the handicapped," which obscures their individual differences and potentials. But handicaps cut across all colors, cultures, and backgrounds. They come in differing degrees and in varying forms, many of which have little in common. Unlike other "groups," handicapped persons have only their often-dissimilar disabilities in common, thus making their segregation particularly odious (Gliedman & Roth, 1980). This segregation stems from our persisting need to determine eligibility for equality, our desire to support the myth of equality. Thus, an individual or group either is or is not eligible. Recognition of the actual differences among persons with handicapping conditions confounds this eligibility and is disruptive to the myth itself.

Thus, society chose to lump disabled persons into a group and to deny them educational eligibility. Pervasive educational discrimination depleted the number of handicapped persons who could be making economic and social contributions in occupations that require extensive educational training. Lumping such individuals with those handicapped persons whose disabilities preclude their taking advantage of advanced educational opportunities feeds right into the myth of equality by keeping significant numbers of qualified handicapped persons out of the job market (Ross, 1981).

Although most minority groups have been denied access to education on the basis of some perceived difference, either physical or mental, which was regarded as making them ineligible for educational participation, these differences are, in fact, real for a segment of the handicapped population. Ascribed limitations are then heaped on top of those real differences. There is a great need to distinguish between real and perceived differences, and to provide educational services to each person according to his or her actual strengths and limitations. Particularly for the more severely disabled individual, distinguishing these differences demands the creation of a different concept of schooling, one that allows the individual to achieve, educationally, according to his or her potential. Such a concept must be enacted regardless of individual potential to contribute, in the traditional sense, to the larger society because, in fact, individuals vary in potential contribution. The educational system must be acknowledged as the mechanism by which each individual's potential is developed. This is something that the common school concept has failed to recognize. Until individual differences, and individual potentials, are acknowledged, then mainstreaming cannot be called a success.

The Rise of Special Education

The exclusion of handicapped children has taken many forms and been practiced in varying degrees. Many states decreed the right to education for all children, even making specific reference to the particular needs of handicapped students, but then they listed the conditions under which children with disabilities could be excluded from schools (Gilhool, 1976). For the less visibly, less severely handicapped children, the schools opened their doors but engaged in such practices as keeping students in a given grade until they could master the curriculum (Gearheart & Weishahn, 1976), or until they became too disruptive and were sent, where they existed, to special, upgraded classes (Gossard, 1940), or until they became frustrated and dropped out of school altogether.

American attempts to provide alternative services for handicapped students were generally initiated in the 1820s and 1830s, about the same time as the rise of the common school. The sporadic support of facilities for blind and deaf students, as well as for those who were mentally impaired, was followed throughout the nineteenth century (Hewitt, 1974). These programs usually were maintained in institutional settings although, often, they professed the same purposes as the common schools, that is, the transmission of knowledge and preparation of future citizens, with the additional purpose of training students in life skills (e.g., Howe, 1857).

Such enlightened programs took into account the different potentials of many handicapped children but, unfortunately, the programs were few and far between and, generally, short lived. By the end of the nineteenth century, most of the institutional programs had assumed a custodial function (Chavez, 1977). The influence of Darwinism and the fear that intellectually and physically inferior beings threatened the future of the human race began to hinder the provision of services. As a group, handicapped individuals came to be considered as deviant and deficient; they were generally viewed with "repugnance and alarm rather than sympathy or benevolence" (Hoffman, 1974, p. 55). Indeed, the eugenicists' fears of racial impurities stymied educational benefits for handicapped children well into the twentieth century.

The growth of special education classes within public school settings appears to be related to the initiation of compulsory attendance laws. As greater numbers of children attended schools, the system's inability to deal with divergent needs -- deviancy -- meant that other facilities had to be devised to meet those needs. For children who were too different, however, exclusion was often the expedient solution.

The Politics of Inclusion

Current recognition of special needs seems to be directly related to the public awareness of needs in other social areas. After World War II, when large numbers of disabled veterans began to seek educational skills to compensate for their battle-related physical handicaps, school systems reflected the public interest by addressing their particular needs (Reynolds, n.d.). Parents of handicapped children began to pick up on this interest, and increased activity among parent groups was perceptible (Greenbaum & Markel, 1977).

By the late 1950s and early 1960s, there began to appear more open attitudes toward individual differences. Powerful persons, such as the late President Kennedy and Senator Hubert Humphrey, openly discussed their personal experiences with mentally retarded persons; their concern for the acceptance of differences was translated into federal appropriations for services to people with handicapping conditions. In 1963, the Mental Retardaion Facilities Act allotted over $50 million for special education personnel training; this was followed by the establishment of the Division of Handicapped Children and Youth (the forerunner of the Office of Special Education) in the U.S. Office of Education (Zand, 1977). Each event expanded the recognition of individual differences and the necessary role of special education in ensuring that those differences did not exclude children and youth from educational opportunities.

In addition, the post-World War II Cold War, followed by the Sputnik era of the late 1950s, brought the realization that the world scene was becoming more diverse, that is, that ideas of isolationism were outmoded and a more diversified and global view of people and education was essential. In other words, the need to understand and accept individual differences was of growing importance (Lortie, 1965). The schools were the obvious avenue for achieving the acceptance of diversity -- within limits.

Finally, the rash of court cases that sought to minimize exclusion and unequal access to education peaked during the 1970s, along with other civil rights cases. Judicial recognition of the importance of education had been given by the U.S. Supreme Court in 1954: "Education is the most important function of state and local governments.... In these days, it is doubtful that any child may reasonably succeed if he (she) is denied the opportunity of an education" (Brown v. Board of Education of Topeka, 1954). Pursuing that recognition, advocates of educational civil rights for handicapped children took their case to court. By 1973, litigation was pending in 25 states on 38 due process cases for handicapped students; and in 8 cases spanning 6 states on issues concerned with the right to inclusion (Javitz, 1973). The outcomes of these cases, combined with a more receptive social atmosphere, was forged into Public Law 94-142, The Education for All Handicapped Children Act of 1975.

To a great extent, Public Law 94-142 served an umbrella function; it covered the demands of parents and advocacy groups, the proliferation of programs for handicapped students, and the legal interpretations of the court decisions.

Exclusion v. Exclusive

Our society has tended to mask the educational exclusion of children with different needs and abilities through tactics of reverse exclusivity, limiting special education services to students who meet explicit qualifications, and then authorizing separate budgets and administrations, specially trained teachers, and smaller classes with different rules for academic achievement and social acceptance (Rucker, 1972). This exclusivity has been underscored by the use of positive terms like "special" education and "exceptional" children, overshadowing the fact that these classes were originally developed not to meet "special" needs but to exclude exceptional children from our common classrooms.

For many of the 4 million children now enrolled in special education programs, Public Law 94-142 has served a paradoxical purpose. The reality of previous exclusion has been exposed; at the same time, a whole new jargon has been developed to single out "special" children in the mainstream. Policies associated with terms like "individual education plan" and "appropriate placement in the least restrictive environment" may signify that each child, as constitutionally guaranteed, must be considered a separate and distinct entity from the rest of the school population, but this new terminology runs parallel and sometimes contrary to the concept of the common school.

The common school stresses, not surprisingly, group commonality and unity: an ordered curriculum and grading process, hierarchical management systems designed to develop individual skills within a group context, and group activities whose purpose is to strengthen individual growth only insofar as group cohesion is not disrupted. Special educators place the highest premiums on individual worth, regardless of alternate potential to the larger group. General educators are trained to emphasize individual achievement only as it contributes to the good of the whole. The paradox, then, is that by providing appropriate placement for handicapped children in the least restrictive environment, we may lose our grip on the educational commitment to the achievement of individual potential that special education has sought to provide. Although this commitment is important to all children, it is essential to handicapped children whose societal contribution may be different or, in some cases, less evident, than for their nonexceptional peers. By shedding the mask of exclusion, we also risk losing the exclusivity which has kept our "special" children from being labeled "deviant."

We are caught in no small dilemma because we are now looking to schools to act, once again, as a great equalizer through accommodation of a new concept of common education. This is a reconception that demands the education of each individual to his or her potential while maintaining the consistency of the group. Supporters have argued that mainstreaming strengthens the group by allowing children to become acquainted with and accept individual differences (Berry, 1972), but the challenge is conceptually beyond the scope of the common school concept; it demands no less than a reconceptualization of the purpose and goals of our educational system. The task is not an easy one. It demands trying to strike a delicate balance between strengthening the self-worth of the individual student within a context of group cohesion and order. This balance requires the dissolution of special education's exclusivity with its self-protecting mystique that only "special" teachers can meet the needs of handicapped children. At the same time, there is required a reassessment of regular education's emphasis on rigid curricula and placement procedures. The very real anger that special educators feel when "their" mainstreamed students' needs are inadequately addressed is the other side of the frustration that regular educators feel when mainstreamed students are "dumped" into their classrooms with insufficient notice and teacher-preparation time.

It is not the demand for guaranteed constitutional rights that will resolve this anger. Nor is it the belief, on the part of many educators, that time and money will take care of the problem. We must harness the energies of both special and regular educators, which now are being channeled into anger over mainstreaming practices, to achieve a blending of the philosophies and programs of the two groups. Joint effort demands a reconceptualization of the common school concept. In a more useful model, uniformity would be the exception and individual differences the norm for dealing with the learning processes of human beings. Such refocusing requires a reexamination of the myth of equality and of the belief that the purpose of schooling is to provide uniformity in academic and moral development. Public Law 94-142 is based on the belief that the purpose of education is to develop individual potential. It is, in essence, an admission that the common school concept has failed, not because of some flaw which can be remedied with more money but because it is philosophically and physically impossible to achieve the kind of homogeneity which the common school reformers sought. Public Law 94-142 is the basis for a new concept of education, a new kind of equality, fashioned out of 30 years of social reform and raised social consciousness, that stresses the rights and potential of the individual within the framework of the larger group.

The old myths of equality will not die easily. They are difficult to dispel because they seem to embody the American spirit through the belief that "all men are created equal." The cruel truth that this is not the case, at least as far as the potential for education is concerned, is one that makes Americans uneasy because it has been so easily perverted to set certain groups above others. However, schools act as a great equalizer only when they assist each individual to reach his or her potential, thus developing the kind of diversity that is truly characteristic of our pluralistic society. Such diversity is the only way in which true democratic participation, in the sense that each person contributes up to his or her potential, can be achieved. Heterogeneity may be antithetical to the historical homogeneous concept of the common school but it is absolutely essential for successful mainstreaming and the truly common education of all American children.

References

Beck, T. The impact and implications of federal legislation. In G. Markel (Ed.), Institute proceedings: The impact and implications of state and federal legislation affecting handicapped individuals. Ann Arbor: University of Michigan, School of Education, Program in Special Education, 1977.

Berry, K. E. Models for mainstreaming. Sioux Falls, S.D.: Adapt Press, 1972.

Blinderman, A. American writers on education before 1865. Boston: Twayne, 1975.

Butts, R. F. Public education in the United States: From revolution to reform. New York: Holt, Rinehart, and Winston, 1978.

Brown v. Board of Education of Topeka, Kansas, 347 U.S. 483, 1954.

Chavez, I. Historical overview of education in the United States. In P. Bates, T. West, & R. Schmerl (Eds.), Mainstreaming: Problems, potentials, and perspectives. Minneapolis: National Support Systems Project, 1977.

Church, R. L., & Sedlak, M. W. Education in the United States, interpretive history. New York: Free Press, 1976.

Conant, J. B. Education in a divided world. Cambridge, Mass.: Harvard University Press, 1948.

Cremin, L. A. The American common school: An historic concept. New York: Teachers College Press, Columbia University, 1951.

Cremin, L. A. American education: The colonial experience, 1607 - 1783. New York: Harper & Row, 1970.

Gearheart, B. R., & Weishahn, M. W. The handicapped child in the regular classrooms. St. Louis: Mosby, 1976.

Gilhool, T. K. Education: An inalienable right. In F. J. Weintraub, A. Abeson, J. Ballard, & M. L. LaVor, Public policy and the education of exceptional children. Reston, VA: Council for Exceptional Children, 1976.

Gliedman, J., & Roth, W. The unexpected minority: Handicapped children in America. New York: Harcourt, Brace Jovanovich, 1980.

Gossard, A. P. Administrative provisions for superior and backward children in the public school systems of ten large cities. Chicago: University of Chicago Press, 1940.

Greenbaum, J., & Markel, G. Parents look at mainstreaming. In P. Bates, T. L. West, & R. B. Schmerl (Eds.), Mainstreaming: Problems, potentials, and perspectives. Minneapolis: National Support Systems Project, 1977, 67-79.

Hechinger, F. M., & Hechinger, G. Growing up in America. New York: McGraw-Hill, 1975.

Hewett, F. M. The education of exceptional learners. Boston: Allyn & Bacon, 1974.

Higham, J. The immigrant in American history. In J. Higham, Send these to me: Jews and other immigrants in urban America. New York: Atheneum, 1975.

Hoffman, E. The treatment of deviance by the educational system: History. In W. C. Rhodes & S. Head (Eds.), A study of child variance, Vol. III, service delivery models. Franklin, TN: New Academic Village, 1974.

Howe, S. G. Ninth report of the trustees of the Massachusetts school for idiotic and feeble-minded youth. Cambridge, MA, 1857.

Javitz, J. Comments made at U.S. Senate Hearings on S. 6 before the Senate Subcommittee on Education for the Handicapped, March 20, 21, 23, 1973.

Lortie, M. Social values and formal education. In S. Harris (Ed.), Challenge and change in American education. Berkeley, CA: McCutchan, 1965.

Novak, M. The rise of the unmeltable ethnics: Politics and culture in the seventies. New York: MacMillan, 1971.

Reynolds, M. C. Trends in education: Changing roles of special education personnel. Columbus, OH: University Council for Educational Administration, no date.

Ross, R. K. Handicapped people in society: Ideas and activities for teachers. Morristown, N.J.: Silver Burdett, 1981.

Rucker, C. N. Implications of the dissonance between present and future special education programming or what is all this special education B.S.? Presented at the UCEA Special-General Education Administration Consortium Regional Conference, Syracuse, N.Y., April 1972.

Sarason, S. Work, aging and social change. New York: Free Press, 1977.

Sarason S., & Doris, J. Mainstreaming: Dilemmas, opposition, opportunities. In M. C. Reynolds (Ed.), Futures of education for exceptional children: Emerging structures. Reston, VA: Council for Exceptional Children, 1978.

Zand, C. R. American attitudes toward handicapped children. In P. Bates, T. West, & R. Schmerl (Eds.), Mainstreaming: Problems, potentials, and perspectives. Minneapolis: National Support Systems Project, 1977.

Educating Handicapped with Nonhandicapped Children: The Legal Foundation for the Least Restrictive Environment Concept

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Trina H. is a young child with spina bifida. This condition has left her with some minor physical impairments, including incontinence of the bowels and a noticeable limp. Trina is clearly physically able to attend and perform easily in a regular public school classroom. She is also of normal mental competence.

Trina's public school offers her parents a choice of three academic placements: (a) the regular classroom, but only if Trina's mother would attend to Trina two-three times daily; (b) homebound instruction; and (c) a special education classroom for physically handicapped children.

Has the school satisfied its legal responsibilities by offering three possible placements? Which, if any, of the choices is a legally sufficient placement alternative? Which, if any, provides Trina an education in the least restrictive environment appropriate to her particular needs?

The facts of Trina H.'s case are relatively simple in comparison with those in many placement issues that education professionals encounter regularly. Nonetheless, the case illustrates the kinds of questions that must be answered when selecting a handicapped

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See numbered endnotes following the text.

child's public school placement. The fact that these questions are even being asked is a relatively new state of affairs; it is attributable to the recent emergence of a national policy to educate handicapped with nonhandicapped children to the maximum extent appropriate.

The policy and its attendant legal requirements have raised numberous questions and led to considerable confusion in education circles.[1] The reason may be that much available information on the policy has focused on key terms such as "mainstreaming" and "least restrictive environment." It is difficult to distil a complex and variable concept, let alone a policy, to a few words, yet sometimes these words are used without elaboration as shorthand expressions for the policy itself.

Some observers contend that the confusion has contributed to the phenomenon known as "dumping" whereby handicapped children are placed in regular classrooms even when a student's particular needs indicate that a more restrictive placement would be appropriate. Other equally sincere commentators assert that substantial numbers of exceptional children who could easily function in a regular or less restrictive setting still are being denied that opportunity. To the extent that both dumping and the inappropriate exclusion of handicapped students continue to occur, educators and the lay public must acquire a precise understanding of the overall national policy and, in particular, the least restrictive environment concept.[2]

The purpose of this chapter is to enhance the non-special education professional's understanding of the policy and associated terms such as "least restrictive environment" (LRE). The chapter is divided into four major sections: (a) An historical overview of the origin and evolution of the national policy of educating handicapped with nonhandicapped students to the maximum extent appropriate and a summary of the respective roles played by the courts and Congress in the establishment of this policy; (b) a summary of various terms and provisions that are used in either the federal statutes that codify the policy or the regulations that attempt to guide its implementation; (c) the least restrictive environment concept and its role in the implementation of national policy; and (d) the application of the LRE concept to several situations in which controversy has led to judicial involvement in the determination of which placement constitutes the least restrictive environment.

Origin and Evolution of the National Policy

Societal Context

The recent movement toward the inclusion of handicapped students in the mainstream of American public education may be viewed as part of a broader societal trend toward the protection of individual rights and interests generally. During the 1950s and 1960s, a fundamental shift in the relative priority to be accorded individual vs. property rights became evident through major new court rulings and legislative initiatives to insure to individuals equal opportunity in education, employment, voting, and housing and in other areas of life.

Although the movement for equality was largely initiated and led by members of racial minority groups, primarily blacks, soon other groups who, historically, had suffered social ostracism, economic deprivation, and political powerlessness joined the struggle. By the late 1960s, Hispanics and other national origin minorities, women, and handicapped persons had begun to use the law to protect and advance their rights. In the case of handicapped individuals, significant offensives were launched against arbitrary civil commitment, capricious sterilization, and inappropriate or nonexistent treatment or habilitation.[3]

The rights sought by handicapped and other persons included a variety of life opportunities, yet each group placed particular importance on education because, as the Supreme Court observed in 1954,

> Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.[4]

In fact, it was the Supreme Court's decision in this case that not only raised the consciousness of society to the civil rights movement but, also, laid the foundation for the principles of equality and equity that have been pursued for the last quarter century by various groups, including the handicapped.

Judicial Intervention

Widespread concern for handicapped persons' civil rights in general and educational rights in particular appeared in the 1970s in opposition to a bleak history of societal exclusion and mistreatment. Permanent custodial institutionalization had been common, historically, in conjunction with the view that mentally handicapped persons were uneducable. Individuals who were not physically excluded from society through institutionalization frequently were segregated into separate and often inferior or inappropriate schools or educational programs. Testing abuses also contributed to the misclassification and misplacement into special education setting of other students, especially those who were members of racial and language minority groups. In the words of one observer, the mentally handicapped citizen, "immobilized by the weight and darkness of his wasted self-capacity...was denied society and society denied him."[5]

In 1972, the courts provided the momentum for early efforts to bring handicapped persons into the mainstream of society, with two outstanding cases in the area of public education rights: *Pennsylvania Association of Retarded Children v. Pennsylvania*[6] and *Mills v. Board of Education*.[7] In PARC, a Pennsylvania statute that excluded persons categorized as "uneducable" or "unable to profit" from further public school education was challenged. Subsequent to trial, a consent decree was successfully negotiated by the parties. In the decree, the state agreed to place each handicapped child in a "free, public program of education and training appropriate to the child's capacity" and also agreed to institute a formal procedure to facilitate the identification, evaluation, and placement of handicapped children.[8] Additionally, the parties agreed that from among a continuum of placement alternatives, placement in a regular classroom was preferable to special public school classes and special public school classes were preferable to any other type of education or training program.[9]

The second case, *Mills*, challenged special education practices in the District of Columbia where a growing percentage of handicapped children were receiving no special or other educational services. The court granted summary judgment in favor of the handicapped and excluded students and ordered the District of Columbia to provide "each child of school age a free and suitable publicly supported education regardless of the degree of the child's mental, physical, or emotional disability or impairment."[10] Mills reiterated the preferences stated in *PARC*, generating the presumption that "placement in a regular school class with appropriate ancillary services is preferable to placement in a special school class." Procedural safeguards also were ordered whenever a child was to be placed in an alternative educational program.[11]

PARC and *Mills* furthered the opportunity of every child to have access to a public education. The cases also stated a preference or presumption for placement in the "most regular" setting appropriate. Although the changes brought about by these two cases were unmistakable, the legal basis for the right of access to public school programing became the subject of substantial debate among constitutional experts. Some contended that the right of handicapped children to education could be predicated on equal protection, substantive, or procedural due process principles whereas others took opposing positions. The cases themselves spurred rather than silenced this debate because *PARC* was resolved by a consent decree and *Mills* was decided on nonconstitutional grounds. Procedural safeguards in both cases were agreed to by the parties rather than grounded in constitutional doctrine. The constitutional underpinnings thus were left open for possible articulation by other courts. Following *PARC* and *Mills*, more than a score of right-to-education cases were filed across the nation.

Legislative Response

The gap in constitutional doctrine was important to legal theorists but various state legislatures and the Congress eliminated--at least temporarily--the need for further judicial amplification of the issue by passing protective statutes that conferred on handicapped children rights to an education and various procedural entitlements. In the aftermath of the initial cases, almost every state passed statutes requiring various degrees of planning and programing for most, if not all, handicapped persons.[12]

In addition to their obvious significance prior to the enactment of federal laws guaranteeing certain rights to handicapped individuals, state mandatory special education legislation remains important to the extent that in some jurisdictions the laws protect the rights beyond the protection afforded by three relevant federal laws. These federal enactments are the focus of this chapter because of their general applicability and the robustness of both the rights conferred and protections afforded. The laws are the Rehabilitation Act of 1973, the 1974 Amendments to the Education of the Handicapped Act, and the Education for All Handicapped Children Act of 1975. An overview of each follows.

Rehabilitation Act of 1973. The first of the relevant federal enactments, the Rehabilitation Act of 1973[13] prohibits discrimination against handicapped persons in all programs receiving federal financial assistance, including the various programs operated by state and local educational agencies. Section 504 of the Act provides that

> No otherwise qualified handicapped individual in the United States... shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

1974 Amendments to the Education of Handicapped Act. Less than a year after enacting the Rehabilitation Act, Congress passed a set of amendments to the Education of the Handicapped Act. The 1974 Amendments,[14] known as Public Law 93-380, deal more expansively than does Section 504 with elementary and secondary education for handicapped persons. Public Law 93-380 requires states to adopt a policy that provides for full educational opportunities for handicapped individuals and procedures to ensure the identification, location, and evaluation of such individuals. Additionally, the law establishes a service priority for handicapped children who are not receiving any educational service and a preference for the regular classroom placement of handicapped children to the maximum extent appropriate to each student's needs. Finally, the law sets out basic due process procedures that must be observed. These 1974 Amendments to the Education of the Handicapped Act in essence initiated planning activities for the future delivery of educational services and laid the basic legislative framework for the subsequently enacted Education for All Handicapped Children Act of 1975, or, as it is commonly referred to, Public Law 94-142.

Education for All Handicapped Children Act. Public Law 94-142[15] was passed to facilitate the actual delivery of services to handicapped children by providing substantial federal financial assistance for that purpose. The receipt of financial assistance by state and local educational agencies is made contingent upon compliance with a number of conditions set out in the law, for example, that each state establish a policy providing that handicapped children have a "right to an education" by September 1, 1980; that priorities be established to assure that funds are appropriately targeted; and that various provisions in Public Law 93-380 be extended and/or expanded, including those pertaining to regular classroom placement. A more detailed examination of selected provisions of each federal statute is made in a subsequent section.

Thus, in response to prodding by the courts and at a time when many state legislatures were beginning to formulate new laws protecting handicapped persons, Congress crystallized a carefully framed national policy of educational inclusion for handicapped children and youth. A Report of the Committee on Education and Labor, House of Representatives, summarized the rights that Congress intended to confer on handicapped children:

1. The right to a free, public education;
2. The right to in fact receive a free education, at no additional cost to parents or guardians;
3. The right to in fact receive an education in the least restrictive environment; 41
4. The right to due process guarantees in all matters of identification, evaluation, placement and re-evaluation;
5. The right to be protected against racially or culturally discriminatory testing materials; and
6. The right to the establishment and maintenance of policies and procedures to ensure the confidentiality of data and information gathered by the state.[16]

By enacting Public Law 93-380 and its successor, Public Law 94-142, the Congress essentially pre-empted the judicial question of whether the constitution provided certain educational rights for handicapped individuals. With the rights statutorily ensured, the attention of the courts could, to a large measure, be diverted subsequently to interpreting the provisions of these Acts and the administrative regulations promulgated pursuant to them.

Significant Terms and Concepts Embodied in the National Policy

A thorough understanding of the national policy of educating handicapped with nonhandicapped students requires an appreciation of several important terms found in the federal statutes, the regulations accompanying the statutes,[17] or the professional literature. These terms include the following:

1. Full educational opportunity.
2. Free and appropriate public education.
3. Individualized education programs.

4. Mainstreaming.

5. Least restrictive environment.

In order to clarify and differentiate their meanings and origins and to explain their interrelations, brief definitions of the terms follow:

"Full educational opportunity to all handicapped children" is the broad goal to which state and local educational agencies must commit themselves in order to be eligible for federal assistance under Public Law 94-142. The law requires each state agency to submit a plan that contains a detailed timetable for accomplishing this goal and describes the type and number of facilities, personnel, and services necessary to meet the goal throughout the state. Local agencies also are obligated to make assurances to their respective state agencies that monies will flow to programs directed to the goal of full educational opportunity.[18]

A "free appropriate public education" is what must be made available by recipient states to each state's handicapped children between the ages of 3 and 21. Specifically, the term refers to the special education and related services which must be provided at public expense. Those services must meet the standards of the state educational agency, include an appropriate pre-school, elementary, or secondary education, and conform to the handicapped child's individualized education program (IEP). It is incumbent upon the local educational agencies to identify, locate, and evaluate handicapped children and to determine which children are eligible currently to receive needed special education services.[19]

The "individualized education program" is the vehicle by which the local educational agency provides an appropriate education to each handicapped student. The IEP is a written statement developed jointly by a representative of the local educational agency, the teacher, parents or guardian, and the student (if appropriate). The statement, which must be revised at the beginning of each school year and reviewed at least annually must include (a) the present levels of the student's educational performance, (b) annual goals and short-term educational objectives, (c) the services to be provided and the extent to which the student will be able to participate in regular educational programs, (d) the projected dates for the initiation and duration of the services, and (e) appropriate objective criteria and evaluation procedures for ascertaining whether instructional objectives are being achieved.[20]

To summarize briefly, full educational opportunity for all handicapped children and youth must be the established goal of both state and local agencies. As part of its commitment, each local agency must develop (and annually revise) an IEP for each handicapped student that provides a "free appropriate education" tailored to the student's specific needs.

The preceeding terms must be appreciated if the two concepts most closely allied with the policy of educating handicapped with nonhandicapped children--"mainstreaming" and "least restrictive environment"--are to be understood. The term "mainstreaming" is found in the professional literature, not in federal statutes or regulations. It refers to a method of organizing the delivery of services and the allocation of resources for students who need special services. The Council for Exceptional Children, the professional association for special educators, defined the terms as follows:

> Mainstreaming is a belief which involves an educational placement procedure and process for exceptional children, based on the conviction that each such child should be educated in the least restrictive environment in which his educational and related needs can be satisfactorily provided. This concept recognizes that exceptional children have a wide range of special educational needs, varying greatly in intensity and duration; that there is a recognized continuum of educational settings which may, at a given time be appropriate for an individual child's needs; that to the maximum extent appropriate, exceptional children should be educated with nonexceptional children; and that special classes, separate schooling, or other removal of an exceptional child from education with nonexceptional children should occur only when the intensity of the child's special education and related needs is such that they cannot be satisfied in an environment including nonexceptional children, even with the provision of supplementary aids and services.[21]

"Least restrictive environment" is the term that many educators use synonomously with mainstreaming although for many the latter refers only to the regular classroom placement of students who are functionally less severely handicapped. The idea was present in the professional literature prior to the mid-1970s but the phrase gained prominence and wide usage only after the adoption of Public Law 94-142 because it appears in the administrative regulations accompanying the Act.

The term is used as the title of a constellation of requirements that are set out in the regulations and must be satisfied to effectively implement the policy of educating handicapped with nonhandicapped children and youth to the maximum extent appropriate. As such, it is used (a) to define the goals, (b) to state the preference for regular classroom placement, (c) to identify the considerations in arriving at a different placement, (d) to set out program and procedural requirements to ensure placement according to the LRE, and (e) to establish the state education agency's technical assistance and monitoring responsibilities.[22]

Thus, although the term is susceptible to a simple literal definition pertaining to where a handicapped student should be provided with educational services, the concept advanced in the regulations counsels against such a definition and necessitates a more thorough examination.

Least Restrictive Environment: In Depth

The LRE concept is explicitly and extensively set out only in the regulations promulgated pursuant to the Education for All Handicapped Children Act of 1975 although it is reflected in the statutory language of this Act and in the regulatory language accompanying the Rehabilitation Act of 1973. One can appreciate that whereas the Congress establishes policy and guiding principles by statute, it often delegates to an executive department, agency, or commission the responsibility for developing detailed procedures based on that office's interpretation of the statute and its underlying intent. With respect to the Education for All Handicapped Children Act of 1975 and the Rehabilitation Act of 1973, the Department of Health, Education and Welfare was responsible for the development of such procedures, promulgating two sets of administrative regulations. After review by the Congress and publication in the Federal Register, the regulations for both Acts became effective in 1977.

Because regulations generally are accorded the full force and effect of law and substantial deference is paid to them by the courts, a proper understanding of the regulations is essential. Although given deference, regulations are not immune from challenges and judicial review to ensure that the explicit language and underlying intentions of Congress are being carried out. Consequently, it is also important to review what the statutory language provides.

The provision in Public Law 94-142 that is pertinent to the least restrictive environment concept conditions eligibility for financial assistance on each state's having established

> . . . procedures to assure that, to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped, and that special classes, separate schooling, or other removal of

> handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily . . . .[23]

Although it does not appear in the statute, the term "least restrictive environment" is used in the regulations as an integrative concept to reiterate and elaborate basic statutory principles and introduce additional requirements that are deemed necessary to translate policy into practice. The section of the regulations entitled "least restrictive environment," consequently, includes provisions detailing the following:

1. The applicable class of children to whom the placement hierarchy applies.
2. The educational programs that are within the mandate.
3. The continuum of placements and services that are required to be available in order to satisfy the law.
4. The role of the individualized education program.
5. The standards for placement in more restrictive settings.
6. The geographical considerations for placement decisions.
7. Miscellaneous procedural requirements directed at state education agencies.

Applicability

The availability of and assignment to the most normal placement appropriate is the entitlement of every handicapped child and youth between the ages of 3 and 21 in the state. Under Public Law 94-142 and its regulations, the state is obligated to seek out and offer necessary services to handicapped children and youth, regardless of whether they are in public or private institutions or care facilities. The state must enter into arrangements with private institutions, if necessary, to fulfill this obligation.[24]

Scope

The regulations address the scope of educational programs to which the placement hierarchy applies. According to the regulations, handicapped children should be placed with nonhandicapped children to the maximum extent appropriate with respect to not only academic services but, also, nonacademic and extracurricular services and activities. The latter include meals, recess periods, counseling, athletics, transportation, health services and clubs.[25]

Continuum of Placements

The availability of a range of placements to meet the needs of handicapped students for special education and related services is an important pre-condition to satisfying the LRE policy. Available placements under the regulations must include regular classrooms, special classrooms, special schools, the home, hospitals, and institutions.[26]

Supplementary and related services also must be made available, as necessary, to enable handicapped students to benefit from special education.[27] Supplementary services include resource rooms and itinerant instruction, provided in conjunction with regular class placements.[28] Related services are those of a "developmental," "corrective," or "supportive" nature, such as psychological and social work services, speech and occupational therapy, and transportation.[29]

Basis of Placement Decision

The basis for making educational placement decisions also is specified by the regulations relating to the LRE concept. Essentially, placement decisions are to be based on the student's IEP.[30]

The latter must include the following: (a) the present level of the student's performance, (b) the student's annual goals and short-term instructional objectives, (c) the student's needs for special education and related services, (d) the extent to which these needs can be met in regular educational programs, and (e) evaluation criteria, procedures, and schedules.[31] The IEP for each handicapped student must be reviewed and revised as necessary but at least annually.[32]

Placement Factors

As the preceding section suggests, the issue of the least restrictive environment is addressed and resolved during Educational Planning and Placement Committee (EPPC) deliberations to formulate IEP. Public Law 94-142 sets out the placement standard. The general standard is that handicapped children be educated with nonhandicapped children "to the maximum extent appropriate."[33] Removal from the regular educational environment is permitted only when "education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily...."[34] In determining whether education cannot be "achieved satisfactorily" in the regular setting, the Act identifies two considerations: the nature of the handicap and the severity of the handicap.

The regulations reiterate the preceding statutory standard and conditions and do not elaborate on their meaning. The Act and regulations appear to contain a presumption for regular classroom placements although neither suggests affirmative criteria for determining whether the student's educational needs can be or are being satisfactorily achieved, other than by reference to the short-term objectives and long-term goals in his or her individualized educational program. Nor do they attempt to identify specific handicaps, the nature or severity of which would preclude regular classroom placement; rather, it is intended that each student be considered on an individual basis.

The regulations, however, include the provision that in selecting the least restrictive environment, "consideration (be) given to any potential harmful effect on the child or on the quality of services which he or she needs."[35] Although this regulatory addition appears to add little to the statutory language in terms of ensuring services appropriate to the student's needs, the consideration of "any potential harmful effect on the child" arguably represents a distinct factor to be taken into account. It may explicitly signal the legitimacy and necessity for the persons involved in the development of an IEP to consider the social/psychological effects of an otherwise educationally appropriate placement, something Congress clearly intended.

Not only do the Act and regulations provide little help in articulating more precise standards for selecting other than regular classroom placement but, also, the regulations actually confuse the issue further by ineffectively addressing the impact of a handicapped student's placement on the nonhandicapped children in the classroom. An official comment in the regulations of Public Law 94-142 explains:

> . . . where a handicapped child is so disruptive in a regular classroom that the education of other students is significantly impaired, the needs of the handicapped child cannot be met in that environment. Therefore, regular classroom placement would not be appropriate to his or her needs.[36]

Note that this comment carefully elects to predicate the conclusion of inappropriate placement not on the disruptive influence of the handicapped student on peers but, rather, on the notion that the disruptive behavior evidences the inappropriateness of the placement to meet the needs of the student. The apparent circularity of this reasoning may be explained by the fact that the drafters perceived the need to address this very real concern of educators but found that the statute makes the handicapped child's needs determinative of a placement's appropriateness and acknowledges no exceptions for possible negative consequences of the placement on the nonhandicapped students.

Several courts have been asked to resolve disputes when the disruptive behavior of a handicapped student was severe enough to necessitate disciplinary actions by school officials. The courts indicated that normal disciplinary responses, such as short-term suspension, may be taken to meet the urgencies of the situation. However, because of their view that a more serious disciplinary response would constitute a change in placement, and their concern that the disruptive behavior may indicate only a need for supplementary services and not necessarily a change in placement, courts have ruled that such a change in placement necessitates the full range of procedural protections for the handicapped student, including EPPC deliberations and a change in the student's IEP.[37]

Location of Placement

Another consideration in arriving at the least restrictive environment is the geographical location of the placement. The guiding principle set out in the regulations is that each child or youth should be educated in the school that the child would attend if he or she were not handicapped, except in those instances when the individual's IEP requires some other arrangement.[38] If another arrangement is necessary, then the placement must be "as close as possible to the child's home."[39]

The comments accompanying this section of the regulations make it clear that placement at a distant school, particularly in a residential program, is of special concern and should be avoided whenever possible. Parents also are advised in this same comment that they may challenge such a placement when an equally appropriate educational program is possible closer to home.[40]

When placement in a facility that is identifiable as one for handicapped persons is required by the child's IEP, comparability is mandated by a related regulation under the Rehabilitation Act. If provides that the education agency must "ensure that the facility...(is) comparable to the other facilities...of the (agency)."[41]

Miscellaneous Requirements

The regulations set out two other major provisions that are intended to facilitate and ensure placements that are consistent with the LRE policy: One provision mandates state education agencies to provide technical assistance and training, the purpose of which is to ensure that teachers and administrators in all public agencies understand and implement the LRE requirements;[42] the other provides for the state education agency to monitor the compliance with the LRE provision and to assist in "planning and implementing any necessary corrective action."[43]

LRE Application and Judicial Interpretation

As the foregoing discussion makes apparent, "least restrictive environment" is an administrative term of art establishing a constellation of requirements for the placement of handicapped students. Although the in-depth review of the LRE concept should reduce some misimpressions regarding the policy of educating handicapped with nonhandicapped students, it also should be apparent that certain questions regarding the complex principles remain to be answered. Standards such as "maximum extent appropriate" and "achieved satisfactorily" defy easy definition and application, which ensures that disagreements will persist. 49

The Act itself anticipated the likelihood of disagreements over this and other aspects of the legislation. Consequently, there are administrative appeals procedures at various levels[44] and an explicit authorization for children with special needs to bring suit in state or federal courts.[45] Whereas suits in the special education context historically have sought a change in policy or placement, plaintiffs now may be able to recover monetary damages[46] from the local education agency[47] and individual school officials.[48]

Recent Supreme Court cases also have demonstrated that successful plaintiffs may be awarded their attorney's fees if their legal claim includes a constitutional violation.[49] The availability of attorneys fees may increase the likelihood of a handicapped child's parents initiating a lawsuit to resolve disputes over the school's handling of the child's needs.

Even though handicapped individuals have been authorized to bring suit to enforce their educational rights, the body of case law interpreting either the least restrictive environment concept in the Education for All Handicapped Children Act of 1975 or its counterpart in the Rehabilitation Act regulation is not expansive. This may be attributed to various factors: (a) the Acts are of relatively recent origin; (b) the presence of state legislation may, depending on the issue and jurisdiction, afford an equally or more advantageous cause of action; (c) most disputes may be resolved through other mechanisms, for instance, through the administrative appeals procedures (either state or federal) or consent decrees that go unreported or unpublished; and (d) a violation of the LRE provision, as contrasted to procedural violations, is more difficult to detect and more demanding to prove. Irrespective of the reason or combination of reasons contributing to the absence of an extensive body of case law on the least restrictive environment concept at this time, there are some decisions that may cast some illumination on the application of the principle.

Granted that two cases are not a basis for generalizations or definitive interpretations, particularly since the judicial process resolves each case on a specific set of facts, the two may illuminate the judicial approach to applying the LRE principle.

The Spina Bifida Child

The first case, Hariston v. Drosick, was concerned with a first-grade child of normal mental competence who suffered from spina bifida.[50] The condition left her with minor physical impairments, including incontinence of the bowels and a noticeable limp. Prior to the beginning of school, her parents were notified that their daughter would not be placed in a regular classroom. After a conference with school officials the school district offered three placement alternatives: (a) the regular classroom, provided that the mother agreed to be present two or three times during each school day to care for the girl; (b) homebound instruction; or (c) a special school for the handicapped.

The parents instituted a suit challenging their daughter's exclusion from the regular classroom program and the district's failure to adhere to appropriate procedural safeguards in arriving at the placement decision. The court concurred with the parents, finding that the denial of access to the benefits of a regular classroom was without a compelling educational justification and, therefore, a violation of the Rehabilitation Act of 1973. Additionally, the court found procedural inadequacies constituting a violation of the due process provisions of the Fourteenth Amendment. Although the court cited the Rehabilitation Act of 1973 as the basis for its decision on classroom placement, it also acknowledged the Education for All Handicapped Children Act of 1975 as a source of federal policy providing a preference for regular classroom placement.[51]

The court made several findings of fact that led to its conclusion that the child s should be educated in the regular classroom setting. These findings were as follows

1. The child was of normal mental competence and physically capable of performing easily in a regular classroom setting.
2. A great number of other spina bifida children with more severe disabilities than the child in question were nonetheless enrolled in regular classrooms throughout the state.

3. Exclusion of the child from the regular classroom would inhibit her capacity to interact socially with peers.
4. Placement in an abnormal environment imposes additional psychological and emotional burdens on handicapped children which cause them difficulties in later life.
5. With respect to the child's classmates in the proposed special school placement, they varied in age from 10 to 17 (an age span in violation of state special education regulations), none was close to her own age (6 years), and only two were ambulatory.

Based on these factors, the court concluded that special school placement would "work a distinct disservice to the individual needs of this child" and that regular classroom placement could not be conditional upon the mother's daily help.[52] 51

The Hepatitis B Carrier

The second case centering on the application of the least restrictive environment principle is New York State Association of Retarded Children v. Carey.[53] At issue was a plan that would have segregated, within the public school setting, mentally retarded children who had been identified as hepatitis B carriers.

The facts leading to the challenge indicated that in 1975 a suit was brought against the State of New York alleging overcrowding, unsanitary conditions, shortages of supplies and trained personnel, and an inadequate or nonexistent educational program at the Willowbrook Development Center. The parties subsequently entered into a consent decree that provided for the placement of residents in the "least restrictive and most normal living conditions possible...," including "a full and suitable education program."[54] However, the integration of the Willowbrook residents into normal schools was threatened in 1978 when the New York City Board of Education summarily excluded 50 retarded children from any educational program whatsoever because they had been identified as carriers of hepatitis B. This exclusion of handicapped children who were carriers, when no similar measures were taken to identify or exclude nonhandicapped children who might be carriers, was enjoined as a violation of not only the earlier consent decree but, also, Section 504 of the Rehabilitation Act of 1973, the Education for All Handicapped Children Act of 1975, several state laws, and various constitutional provisions.

The Board of Education subsequently proceeded to devise a plan, consistent with city health department recommendations, that provided for the "education of the retarded carrier children within the public schools, but in classes and activities separate from all noncarrier retarded children."[55] City officials had concluded that "a significant possibility of transfer of hepatitis B within the classroom setting" was possible, based on their observation of unhygenic behavior such as slobbering, kissing, and mouthing of objects in selected special education classrooms, although no instance of the actual transmission of hepatitis B had been reported.[56]

The proposed plan called for the assignment of identified carriers to one of 9 newly created special education classrooms that were located at 5 specified sites, one in each borough. The plan also required the separation of these children from others in nonacademic and extracurricular activities. The proposed plan was brought before the court by the Board of Education on a motion to declare its validity under applicable federal and state law. The New York State Association for Retarded Children objected to the plan as inconsistent with a variety of federal and state laws.

In support of its plan the Board contended that it was acting consistent with Health Department Guidelines, which were necessary to protect the health and welfare of all retarded children. The Board further asserted that the plan calling for the mandatory separation of carriers from noncarriers and its implementation would be characterized by (a) individualized consideration of each child's present and proposed placement to assure environmental similarity; (b) minimal relocation of students; (c) maintenance of existing class sizes when possible; (d) assignment of qualified teachers and staff; and (e) provision of all services currently mandated for each child.[57]

Based on extensive testimony, however, the court concluded that despite the Board's best efforts to assure an appropriate educational environment, a number of unavoidable negative consequences would result from the plan's implementation:

1. over half the children would be transferred to different schools resulting in disruption and disorientation;
2. reduction in class size would result in limited peer interaction and exposure to non-institutionalized and nonhandicapped children;
3. the minimum number of students of like ages for foundation of new classes would require grouping or cross-categorizing of students having differing developmental levels, limiting the use of instructional aids, techniques, and group activities which would otherwise be employed;

4. certain students would be advanced to higher functioning classes despite questions regarding their present ability to benefit from such promotion;

5. the opportunity for the identified children to engage in nonacademic and extracurricular activities (meals, recess, dances, assemblies) with nonhandicapped children or children in other special education programs and the opportunity to benefit from peer contact and association with more highly developed children would be severely limited; and

6. movement would impair the continuity of the learning program and the relationships among students, teachers and other staff and stigmatize the children, and contribute to regression in their personality and educational development.[58]

To illustrate why the court found that the placements would not best serve the needs of the children, the following excerpt is taken from the court's opinion: 53

> The reduction in peer interaction resulting from smaller classes and enforced segregation is conceded by the Board, but several examples are illustrative. According to his I.E.P., Paul K.'s primary educational objective is to practice social interaction with his peers. Currently, he is in a class of fifteen students, but under the Board's proposal he would be transferred to a class in Manhattan of only three students. Debra G. and Annette C. presently benefit from use of such facilities as a home economics room and a boutique at their Queens school. If moved and segregated, these children may be foreclosed from their present participation in these activities. Similarly, students such as Salvatore L., Louis A., Lisa L., Robert S., and Angela K., who now receive departmentalized instruction concentrating on their most critical educational needs, would no longer be permitted to move from one class to another during the day, but would be confined to single classrooms and their associations limited solely to other hepatitis B carrier children. At an age when varied stimulation and broad interaction with other individuals are considered both desirable and necessary, this kind of restriction in the educational programs of the children seems a regressive, rather than progressive, alteration of existing placements.[59]

Acknowledging that placement in the least restrictive environment is not an absolute right irrespective of the health and welfare interests of other children, the court next addressed itself to the legal issue of "...whether on balance the proposed segregation of carrier children, with its resultant educational disadvantages, is justified to protect the health and welfare of the noncarrier retarded children."[60]

After weighing the competing interests, the court concluded that transfer of the children to the more restrictive environment was not justified: (a) The unhygienic behavior that may form the basis for transmission of the disease was not shown to be particularly prevalent; (b) there was no evidence of the actual transmission of the virus within the classroom setting, and (c) several government agencies had cautioned against placing unwarranted restrictions on retarded carriers until more definitive information on the infectiveness of persons with hepatitis B becomes available.[61]

Specific notice was taken of governmental guidelines that provide the following:

> ...careful attention to hygenic practices, proper classroom management and structure, and increased training of teachers and staff are sufficient to substantially reduce the risk of transmittal and obviate the claimed necessity for separation.[62]

The preceeding cases resolve the question of what constitutes the appropriate and least restrictive placement for a limited number of students. The cases, however, illustrate the nature of the court's role in arbitrating conflicting educational judgments and some of the criteria employed in the process.

Conclusion

The evolution of a new national policy of educating handicapped with nonhandicapped students to the maximum extent appropriate has been traced in this chapter. It was suggested that the evolution was a response to a bleak history of societal exclusion and mistreatment of handicapped persons and occurred in the context of a broad societal trend toward greater protection of individual rights and interest generally.

Efforts toward mainstreaming gained momentum in 1972 with the decisions in *PARC* and *Mills*, which now stand for the proposition that in the continuum of placement alternatives, placement in a regular classroom with appropriate ancillary services is preferable to placement in special classes, and that placement in special classes is preferable to placement in any other type of education or training program. *Mills* also ensured that procedural safeguards accompany any alternative educational placement.

Subsequent to these and other right-to-education cases, Congress crystallized the developing national policy by enacting three important acts: the Rehabilitation Act of 1973, the 1974 Amendments to the Education of the Handicapped Act, and the Education for All Handicapped Children Act of 1975. These acts and their accompanying administrative regulations articulate the policy and specific procedures for policy implementation.

The acts and regulations are complex. We suggested that the keys to understanding the policy are a number of crucial terms: (a) full educational opportunity, (b) free and appropriate public education, (c) individualized education plan, (d) mainstreaming, and (e) least restrictive environment. The LRE concept was reviewed in depth because of its prominence in the regulations.

Finally, two court cases illustrating the rather small body of case law on the LRE concept were discussed. What became clear was that placement decisions are not necessarily simple and that a variety of interests must be weighed. No doubt, additional interventions by courts to resolve disagreements over the meaning and requirements under the law will be forthcoming.

The courts will be asked to resolve various disputes concerning implementation of the LRE concept although the primary responsibility for compliance rests with practitioners who must regularly make placement decisions. Their commitment to the national policy and the LRE concept is necessary if children like Trina H. are to enjoy the fullest possible range of life's opportunities.

Endnotes

[1] See, e.g., B. Aiello, Teachers ask about handicapped children and the new laws. *Education Unlimited*, 1979, *1*(1), 33.

[2] For a detailed guide to the provision, see *LRE: Developing criteria for the evaluation of the least restrictive environment provision*. Philadelphia: Research for Better Schools, 1979.

[3] See, generally, R. L. Schwitzgebel & R. K. Schwitzgebel, *Law and psychological practice*. New York: Wiley & Sons, 1980.

[4] Brown v. Board of Education, 347 U.S. 483, 493 (1954).

[5] Comment: The least restrictive environment section of The Education for All Handicapped Children Act of 1975: A legislative history and an analysis. 13 *Gonzaga Law Review* 717 (1978).

[6] 334 F.Supp. 279 (E.D. Pa 1972), *modifying* 334 F.Supp. 1257 (E.D. Pa. 1971).

[7] 348 F.Supp. 866 (D.D.C. 1972).

[8] 334 F.Supp. at 1260; 1265.

[9] 334 F.Supp. at 1260.

[10] 348 F.Supp. at 878.

[11] 348 F. Supp. at 880

[12] Bureau of Education for the Handicapped, *Executive Summary of the First Annual Report on Implementation of P.L. 94-142 and Selected Tables*, p. 19. Reprinted in National Association of State Directors of Special Education, *Liaison Bulletin*, March 12, 1979.

[13] 29 U.S.C. § 794.

[14] 20 U.S.C. § 1401 et. seq. (1978).

[15] 20 U.S.C. § 1401 et. seq. (1978).

[16] H.R. Rep. No. 332, 94th Cong., 1st Session 15 (1975).

[17] Regulations accompanying the Rehabilitation Act of 1973 are found at 45 C.F. R.__ 84 (1979); regulations accompanying P.L. 94-142 are found at 45 C.F.R.__ 121 a (1979).

[18] P.L. 94-142, 20 U.S.C. 1412 (2) (A)(i); see official analyxis of 45 C.F.R. § 121a 304-306, found at App. A. In general, operational definitions used in this chapter are drawn from P.L. 94-142 and its accompanying regulations, although definitions may also be found in the Rehabilitation Act of 1973 or its accompanying regulations. Where appropriate, the authors also will include a citation to the latter authorities.

[19] P.L. 94-142, 20 U.S.C. § 1401 (18); 45 C.F.R. § 121a. 4. See also regulations accompanying the Rehabilitation Act of 1973, 45 C.F.R.§ 84.33.

[20] P.L. 94-142, 20 U.S.C. § 1401 (19); 45 C.F.R. § 121a. 340-346.

[21] Council for Exceptional Children, 21 Michigan Federated Chapters of the CEC, 1976.

[22] See 45 C.F.R. § 121a. 440-446.

[23] 20 U.S.C. § 1412 (5)(B).

[24] 45 C.F. R. § 121a. 554.

[25] 45 C.F.R. § 121a. 306; 121a. 553.

[26] 45 C.F.R. § 121a. 551 (b)(1).

[27] 45 C.F.R. § 121a. 551 (b)(2).

[28] 45 C.F.R. § 121a. 551 (b)(2).

[29] 45 C.F.R. § 121a. 13.

[30] 45 C.F.R. 121a. 552 (a)(2).

[31] 45 C.F.R. 121a. 346.

[32] 45 C.F.R. 121a. 552 (a)(1).

[33] P.L. 94-142; 20 U.S.C. § 1412 (5)(A) (emphasis added).

[34] P.L. 94-142; 20 U.S.C. § 1412 (5)(B) (emphasis added).

[35] 45 C.F.R. 121a. 552 (d).

[36] 45 C.F.R. 121a. 552.

[37] See Stuart V. Nappi, 443 F.Supp. 1235 (Conn. 1978); Mrs. A. J. v. Sch. Dist. No. 1, Minneapolis, 478 F.Supp. 418 (D. Minn. 4th D. 1979); Sherry v. NYSE Dept., 479 F.Supp. 1328 (W.D.N.Y. 1979).

[38] 45 C.F.R. 121a 552(c).

[39] 45 C.F.R. 121a. 522 (a)(3). There is no guidance offered by the regulations for the dilemma presented by a handicapped child in a desegregated setting where the child's normal school assignment is the school closest to home. If both the assigned school and the closest school offer an appropriate placement, to which school should the child be assigned?

[40] 45 C.F.R. § 121a. 552.

[41] 45 C.F.R. § 84.34 (c).

[42] 45 C.F.R. § 121a. 555.

[43] 45 C.F.R. § 121a. 556.

[44] 20 U.S.C. § 1415 (b)(1)(E).

[45] 20 U.S.C. § 1415 (e)(2), (4).

[46] See State of Maine v. Thiboutot__U.S.__(1980) (48 USLW 4859).

[47] See Monell v. NYC. Dept. of Social Services, 436 U.S. 658 (1978); Owens v. City of Independence, Missouri, __U.S.__(1980) (48 USLW 4390).

[48] Wood v. Strickland, 420 U.S. 308 (1975).

[49] See Maher v. Gagne, __U.S.__(1980) (48 USLW 4891); Civil Rights Attorneys Fee Award Act, 42 U.S.C.§ 1988.

[50] 423 F.Supp. 180 (S.D.W.Va. 1976).

[51] This case was decided prior to the promulgation of the regulations in 1977. Therefore

absence of any discussion of the least restrictive environment in the opinion is understandable.

[52] 423 F.Supp. at 184.

[53] 466 F.Supp. 487 (E.D.N.Y. 1979).

[54] 466 F.Supp. at 490-491.

[55] 466 F.Supp. at 489.

[56] 466 F.Supp. at 497.

[57] 466 F.Supp. at 492-93.

[58] 466 F.Supp. at 493-97.

[59] 466 F.Supp. at 496.

[60] 466 F.Supp. at 497.

[61] 466 F.Supp. at 503.

[62] 466 F.Supp. at 503.

Attitudes and Mainstreaming: Theoretical Perspectives and a Review of Research

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The attitudes toward exceptional children that are held by school personnel are a key factor in the success of mainstreaming. Their critical role was stated forcefully by Martin (1976).

> We must recognize that helping teachers to deal with the uniqueness of children is an attitudinal problem.... It is our feelings with which we must deal: our attitudes, fears, and frustrations about the handicapped, about something that is a little different. We can give skills and competencies, but our attitudes affect the delivery of them. In the design of training programs we must look at the attitudes of everyone involved...and make those attitudes the focus of our change efforts. (pp. 5-6)

Martin's view echoes the widespread assumption that we know the nature of existing attitudes toward handicapped students and, consequently, what it is that must be modified. Unfortunately, our knowledge of attitude assessment and change is inadequate for the task.

The purpose of this chapter is to review the attitude assessment and attitude change literature, especially the materials that relate to mainstreaming, and to draw from them those caveats and principles which must be understood if classrooms are to be made more hospitable environments for handicapped students. To meet this objective we draw first upon

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the theoretical and empirical findings of social psychology on the definitions, structure, and functions of attitudes. Then we examine the studies on attitudes toward mainstreaming, discuss some of the theoretical considerations in developing programs of attitude change, and evaluate special education attitude change activities. Finally we try to derive principles and considerations that will facilitate the work of persons who assess special education attitudes and plan attitude change programs.

Nature and Functions of Attitude

Definitions and Structure

Zimbardo and Ebbesen (1970) noted that attitudes can be changed.

> (They) have been generally regarded as either mental readiness or implicit predispositions which exert some general and consistent influence on a fairly large class of evaluative responses. These responses are usually directed toward some object, person, or group. In addition, attitudes are seen as enduring predispositions, but ones which are learned rather than innate. Thus, even though attitudes are not momentarily transient, they are susceptible to change. (p. 6)

In 1935 Allport defined an attitude as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related." This definition has been widely accepted (Triandis, 1971, p. 2). Triandis (1971) himself incorporated many of the central theories of social psychologists when he redefined an attitude as "an idea charged with emotion which predisposes a class of actions to a particular class of social situations" (p. 2).

An attitude is a complicated concept. If one examines its structure, one discerns that it can be analyzed in terms of its means-end (instrumentality-value analysis) or knowing-feeling-acting qualities (cognitive-affective-conative analysis).

1. In the means-end analysis the attitude toward an object is defined as a "composite of the perceived instrumentality of that object to the person's goals, weighted by his evaluation of those goals" (McGuire, 1968, p. 153).

2. The cognitive-affective-conative analysis is more frequently cited. The cognitive component of attitudes (also referred to as the perceptual, informational, knowing, or stereotypic component) refers to how the attitude object is perceived, that is, its concep-

tual connotation--the stereotype the person has of the attitude object (Bem, 1970; Greenwald & Brock, 1968). The affective component of attitudes (also called the feeling or emotional component) deals with the person's feelings of like or dislike for the object of the attitude. The conative component (also referred to as the acting, action, or behavioral component) refers to the person's gross behavioral tendencies regarding the object (Bem, 1970; Greenwald & Brock, 1968; McGuire, 1968; Triandis, 1971).

Cognitive-affective-conative analysis has received little attention in studies of attitudes toward handicapped students. Jones (1978) commented on its scarcity in the research.

> In the majority of the studies on attitudes toward the handicapped in which teachers, school administrators, or peers have participated, the attitudes have been treated as unidimensional. Rarely (Efron & Efron, 1968; Gottlieb & Corman, 1975; Jones, 1974; Jones, Gottfried, & Owens, 1966; and Siller, 1967) was there recognition that attitudes toward any object or group tend to be multidimensional rather than unidimensional, and that attitudes toward any special education group or concept may differ as a function of the handicapping condition, age, and status of the respondent, situation, or interactions among these and other variables. Fortunately, these facts have not escaped all researchers. For example, when Gottlieb and Corman (1975) factor analyzed attitudes toward the mentally retarded, they found four underlying factors: positive stereotype, segregation in the community, segregation in the classroom, and perceived physical and intellectual handicap. Siller (1967), who factor analyzed attitudes toward amputees and the blind, found seven virtually identical factors: interaction strain, rejection of intimacy, generalized rejection, authoritarian virtuousness, inferred emotional consequences, distressed identification, and functional limitations. Jones' (1974) work suggested that there may be commonalities as well as differences in attitudes toward various exceptionalities. (p. 75)

Functions of Attitudes

The ways in which attitudes are formed and function can be explained by a number of "families" of social psychology theories: consistency, information processing, social judgment, functional, and self-perception (McGuire, 1968; Shaw & Costanzo, 1970; Triandis, 1971). Although each "family" contributes to our understanding of special education attitude assessment and/or change, none adequately explains all elements of interest in attitude assessment and change. Whereas a number of the theories share commonalities, supplement one another, and lead to similar more often than opposing predictions, the theories sometimes give rise to different predictions because they focus on different independent variables.

It is possible, of course, to apply each theory to the areas of our interest. The magnitude of this task and the limitations of space, however, make such analyses impossible.

Nevertheless, theory is both valuable and essential to facilitate our understanding of the assessment and modification of attitudes related to special education. In this context, then, let us look at the implications of a single theory--functional--to understand the attitudes of regular classroom teachers toward handicapped students.

Functional theory. Simply stated, the functional approach seeks to understand why people hold the attitudes they do so that modification procedures can be designed accordingly. Triandis (1971) wrote,

> The basic assumption of the functional theory of attitude change is the relationship between situational forces and information on the one hand, with the individual's pattern of motives and values on the other. In sum, it is the relationship between incoming information and personality characteristics that lead either to the assimilation or to the rejection of this information. (p. 97)

Attitudes have four types of functions: (a) instrumental-adjustive or utilitarian, (b) economy (knowledge), (c) value-expressive (self-realizing), and (d) ego-defensive (Greenwald & Brock, 1968; McGuire, 1968; Triandis, 1971).

The instrumental-adjustive or utilitarian function is derived from the individual's tendency to maximize the rewards in the external environment and to minimize the penalties. For example, take a worker who supports a political party that he believes will help him economically. To change his attitude, one must change his evaluation of the goal to which the attitude is instrumental or, more easily, his perception of the instrumentality to that goal.

The economy (knowledge) function is based on the individual's need to give structure to his universe, that is, to understand it and be able to predict consequences. An attitude based on this function should be amenable to change when the subject has new experiences with the object. However, because all attitudes are not sensitive to new information, selective exposure may be necessary to give attitudes a high threshold for change.

The value-expressive (self-realizing) function is evident when the expression of an attitude gives pleasure inasmuch as the attitude reveals some basic values held by the person. This type of attitude can be changed by providing subjects with other modes of expressing themselves or with other issues that demand strong opinions. If the attitude becomes a means of self-realization, then the attitude is formed to justify one's behavior; one does not behave as one does simply because on one's attitude. The attitude of such a person will change when he or she is forced to comply overtly with a new norm, that is, the person's attitude will be modified to justify this new behavior and, thus, the person will internalize the new norm.

The ego-defensive function allows the individual to adopt an attitude that protects him or her from acknowledging uncomplimentary truths. Such an attitude is impervious to change by conventional informational approaches; it can be changed, however, through self-insight, catharsis, or cognitive reorganization, which is not always easy.

Other factors that have been identified as affecting attitudes include (a) genetic endowment; (b) physiological conditions (aging or maturation, certain surgical and pharmacological interventions, certain types of illness, deprivation states, and understimulation through social isolation); (c) direct experience with the attitude object; (d) life experiences (e.g., child-rearing practices, brainwashing); and (e) nonverbal social communication. These classes of factors affect attitude formation by (a) contributing specific attitudinal content to the person's belief system, and (b) determining the dynamic characteristics of that system, such as its openness to change or degree of integration (McGuire, 1968).

Functional theory and teacher attitudes: A translation. If functional theory is applied to the study of teachers' attitudes, then it seems that the most effective techniques for changing an attitude would be those that zero in on the particular function supporting the attitude. A basic assumption of functional theory is that the key factors are not situational forces or the amounts and types of information possessed by persons but, rather, their relation to individual motive patterns. Not only must a number of motivational forces be taken into account in considering teachers' attitudes but, also, that the same attitude can have a different motivational basis in different people. For example, teachers' attitudes toward handicapped children could stem from any or a combination of the following motivational contexts:

1. The attitudes may reflect exposure to a limited and inaccurate range of information on the social and achievement capabilities and needs of handicapped learners. In the past, the preparation of regular classroom teachers did not include exposure to or information on children considered to be exceptional. Classroom teachers' nonaccepting attitudes toward exceptionality may indicate that in order to understand and relate to their world of learners, the teachers adopted a standard that gives them a consistent and stable frame of reference.

2. The attitudes may reflect conformity to the existing social norms and values of educators. Consequently, the attitudes are utilitarian; they permit the individual teacher to adjust to the environment by maximizing the rewards that follow membership in and identity with the professional group. When the prevailing norms dictated segregated classes for handicapped children, the typical belief was that many learner characteristics extended beyond the regular classroom teacher's realm of expertise and responsibility. In addition, it was believed that educational problems stemmed from "deficiencies" of the child, the family, and/or the community (Dabney, 1976). This view dismissed school personnel from the responsibility of designing and modifying educational curricula to serve children with varying learning needs and capabilities.

3. The attitudes represent an ego-defensive need to protect the individual from acknowledging unpleasant truths (e.g., that he or she is insecure or incompetent). During preparatory training for classroom teachers, the focus was on the "regular," the "average," and the "normal." Taking responsibility for the instruction of students with heterogeneous learner styles from various cultural backgrounds is an educational task of significant magnitude, one that is likely to threaten the teacher's ego or self-image in the teaching role. Anything that increases anxiety and is viewed unconsciously as a threat heightens the individual's rigidity. Specifically, teachers' nonaccepting attitudes toward handicapped children may function to defend their self-images and prevent experiencing the threat of failure.

By applying functional theory to the study of teacher attitude change, one can hypothesize a relation between attitudes held and conditions facilitating change. In short, by encouraging self-awareness and arousing a need for consistency through experiences that are directly relevant to teachers' involvement with handicapped children, the attitude-change process may be facilitated.

Obviously, our efforts to assess attitudes toward mainstreaming must be proficient if the complexities of attitudes held by educators are to be uncovered and sound programs of attitude change developed.

Attitudes Toward Exceptional Children and Mainstreaming: A Review of Research

An understanding of attitudes toward handicapped children and their placement in regular schools and classrooms is necessary if mainstreaming programs are to be successful. Regrettably, we have little reliable information on the attitudes evoked by mainstreaming in teachers, administrators, nonhandicapped students, parents, and the general public. What there is should be critically examined.

Teacher Attitudes Toward Exceptional Children

Studies of teachers' ratings of specific disability groups suggest a hierarchy of attitudes. For example, Shotel, Iano, and McGettigan (1972) found that teachers preferred learning disabled (LD) to emotionally disabled (ED) students and felt least favorable toward educable mentally retarded (EMR) children. Earlier, Warren, Turner, and Brody (1964) showed that EMR students were more acceptable to teachers in training than were the brain injured, and Combs and Harper (1967), who assessed teacher responses to labels, found that psychotic disorders were interpreted more negatively than were retarded or neurological syndromes. None of the three studies addressed the complexity of attitudes; all investigated only the cognitive component. In measuring attitudes toward specific disabilities, it may be that the labels and descriptors are used so variously that it is impossible to compare results across studies.

If we accept Combs and Harper's (1967) findings, then labels affect teachers' attitudes toward handicapped persons and the effect varies according to the type of handicap. At the same time, it may be the amount rather than the type of experience that helps teachers to achieve a realistic attitude toward the placement of exceptional children (Combs & Harper, 1967). Proctor's (1967) findings, however, contradicted those of Combs and Harper (1967); she found that special class teachers were more realistic than regular teachers in their attitudes on integration.

Experience with handicapped students may lead to negative attitudes toward them. For example, when Phelps (1974) surveyed by questionnaire the attitudes of 10 teachers and 10 non-teachers toward the placement of students with specific disabilities in special or regular classrooms, he found that teachers tended to favor special classroom and school placement whereas non-teachers tended to favor regular classroom placement.

Teaching level also may be related to expressed attitudes. Wandt (1952) reported that elementary teachers in general had more favorable attitudes toward pupils than did secondary teachers, and that teachers with more experience and secondary teachers tended to be more homogeneous in their attitudes toward pupils than were teachers with little experience or elementary teachers. Wandt also tried to ascertain whether verbalized attitudes correlated with overt behavior. He administered the short form of the Inventory of Teacher Opinion to 500 teachers; their responses were correlated with assessments by trained observers of their actual classroom behaviors. The analysis of the relation of paper and pencil responses to overt behavior touched on an important but neglected topic in special education attitude research: that of attitude-behavior consistency. Jones (1978) discussed this problem as follows:

> The essence of the notion of attitude-behavior consistency is simply this: Most people operate on the assumption that when a person states that he believes in or feels a particular way about a person or object he will, in fact, behave in a way that is consistent with his statements. Thus, for example, when regular teachers and other personnel complete interviews, questionnaires, or scales on their attitudes toward various types of exceptional children, mainstreaming, instructional innovation, or other groups of concepts, we assume that their behavior will reflect these attitudes. Similarly, when children express attitudes toward their handicapped peers, we expect their behavior toward their peers to reflect their verbal statements. Regrettably, expectation is not matched by reality. The inconsistency between attitudes and behaviors is the stimulus for much contemporary sociological and social-psychological research (Gross & Niman, 1975; Schuman & Johnson, 1976; Wicker, 1969). Indeed, Schuman and Johnson cited 160 references to this problem alone, and reported that their working bibliography was well over 300 items!
>
> Wicker (1969) reviewed 46 studies in which the participants' verbal and behavioral responses to attitudinal objects were obtained on separate occasions. The researchers used a wide range of verbal attitude measures (Thurstone and Likert Scales, the semantic differential, interviews), and several specific behavioral measures. The participants came from diverse populations (maternity-ward patients, labor union members, oil-field workers, and college students). On the basis of his analyses, Wicker concluded that measured attitudes were often unrelated or only slightly related to overt behavior; rarely were the attitude behavior coefficients above .30. Schuman & Johnson (1976) in a more recent summary, were less pessimistic. Their more comprehensive review showed that most attitude-behavior studies yielded positive results, although the correlations were rarely large enough to suggest that attitudinal responses can substitute for behavioral measures, an informative observation for future special education attitude research. (pp. 75-76)

Teachers' Attitudes Toward Mainstreaming

Inquiries into teachers' attitudes toward mainstreaming have been part of both informal and formal investigations. The major differences between the two are that validated instruments are not used in the informal studies and measurements usually are attempted after the commitment to mainstreaming has been made. For example, when Birch (1974) examined mainstreaming programs in different parts of the country, he collected informally whatever information he could on the teachers' attitudes toward the programs. Thus, he reported, in Tucson, Arizona, more than 50% of the teachers did not reject the idea of mainstreaming absolutely; in Kanawha, West Virginia, "Most teachers...had shown their willingness to participate in mainstreaming by actually doing so" (pp. 86-87), although in every school in which he made observations "some regular class teachers were not enthusiastic about having responsibility for EMR pupils" (p. 86); and, he concluded, "Teachers influence and are influenced by the attitudes of each other, of administrators, and of the community. Mainstreaming as a principle and a process depends heavily upon positive attitudes..." (p.94). When teachers do not have a choice about accepting or rejecting mainstreaming, their expressed attitudes may reflect attempts to feel more comfortable in a conflict situation (i.e., reduce cognitive dissonance; Festinger, 1957). Inasmuch as Birch did not measure attitudes before the projects were initiated and his survey was confined almost exclusively to the teachers participating in the projects, the information he collected must be evaluated cautiously.

Another indirect attitude indicator has been the contents of teacher-negotiated employment contracts. Sosnowsky and Coleman (1971) reviewed such contracts in Michigan and found statements indicating that teachers did not feel that they should assume on-going responsibility for ED, MR, or physically handicapped students because their presence in the regular classroom was thought to impede the achievement of nonhandicapped students. It may be difficult to generalize from these conclusions, which were reached before mainstreaming became a national issue. However, the study represented a good example of the indirect measurement of the behavioral component of teachers' attitudes. Nevertheless, we regard the information on teacher attitudes which is derived from informal assessments to be unreliable, yet many programs of inservice training are built precisely on such information.

Our 1978 survey revealed no current comprehensive formal assessment of teacher attitudes toward mainstreaming, perhaps because the concept of mainstreaming is itself ambiguous other than the pertinent provisions of Public Law 94-142. Attempts to assess teachers'attitudes toward mainstreaming often have been a secondary aspect of most projects whose primary foci often were, for example, assessing inservice treatment effects and measuring specific program effects (e.g., the resource room program), attitudes toward a specific disability group, and the interaction of certain teacher background (e.g., experience) with teachers' attitudes toward handicapped children/program placement preferences.

Examples of studies that assessed attitudes while measuring other treatment effects are the following: Haring, Cruickshank, and Stern (1958; they measured teachers' attitudes toward exceptional children after a 30-week workshop); Shaw and Gillung (1975; they assessed the effectiveness of a college course in improving the attitudes of regular classroom teachers toward mainstreaming mildly handicapped children); Glass and Meckler (1972; they measured the effectiveness of a summer workshop to prepare elementary teachers to instruct mildly handicapped children in regular classrooms); Brooks and Bransford (1971; they studied the effects of a summer workshop that was designed to modify teachers' attitudes toward exceptional children); and Yates (1973; the investigator measured cognitive and affective changes in teachers who participated in a continuing education program of special education for regular classroom teachers). The results of these five studies consistently showed an increase in the amount of special education information teachers acquired and a significant change in their attitudes toward integration. However, the studies provided very limited information on regular teachers' attitudes toward mainstreaming for purposes of generalization. One major problem is that the pre-study attitudes of the teachers were not reported or compared to a qualitative standard. We do not know if, in fact, the teachers' attitudes were negative to start with; therefore it is difficult to justify the results of the treatment programs when the investigators assume that the teachers need to become more positive in their attitudes toward the integration of exceptional children. There is some indication that positive or negative attitudes toward mainstreaming may not be so important as the teachers' ability to make a realistic professional assessment of both a learner's ability to learn and the teacher's ability to teach the child in his/her regular classroom.

Methodologically, the reports displayed a number of weaknesses. Most studies addressed only the cognitive component of attitudes, demonstrating little awareness of the complexity of attitudes. The investigators employed paper and pencil measures and made little use of observations, interviews, or unobtrusive measures to validate the measurements. Actual classroom behavior measurements were not taken and except for the Haring et al.(1958) study, the teacher samples were small, nonrandom and nonrepresentative. The samples were limited to elementary level teachers. However, other investigators have indicated that elementary and secondary teachers differ in general attitudes toward children (e.g., Wandt, 1952) and specifically in preferences for the placement of handicapped children (e.g., Kingsley, 1967).

The volunteer status of the teachers in the study samples may have confounded the measurements because teachers who did not volunteer to participate in the activities may have held significantly different attitudes. Yet when Shaw and Gillung (1975) addressed this problem they found that the teachers who volunteered for summer workshops were not unlike their peers on initial attitude measures toward handicapped children. Unfortunately, their sample was small (10) and the comparison group consisted of college students in other courses, which still may not explain the position of the teachers who took no college classes at that time. The characteristics of the sample population were not included. Many participating teachers anticipated being involved in mainstreaming programs. This expectation may have affected their attitudes. Another problem in generalizing is that some studies (e.g., Brooks & Bransford, 1971; Haring et al., 1958) included both administrators and teachers in their samples. Classroom teachers may favor the segregation of exceptional learners whereas administrators may prefer integration (Barngrover, 1971). Testing teachers and administrators in the same setting may bias the results if teachers feel uncomfortable in expressing their attitudes in the presence of authority. No study addressed the problem of response sets by using measures that are designed to control for social desirability or other potentially biasing factors.

Regular classroom teachers' attitudes toward mainstreaming also have been judged in the context of assessing specific program effects and administrative arrangements. For example, Bradfield, Brown, Kaplan, Richert, & Stannard (1973) measured attitudes of third-grade teachers who were participating in an integration program; Barngrover (1971) interviewed 50 educators to determine their preferences in special education programs; Johnston (1972) used an "opinionaire," personal interviews, and observations to ascertain teachers' attitudes toward teaching special with nonspecial children; Guerin and Szatlocky (1974) assessed both administrators' and teachers' attitudes toward four different integration programs for mildly retarded students; and Shotel et al. (1972) tried to determine how a program for integrating specific disability groups into regular classrooms with supportive resource room services would affect the attitudes of regular classroom teachers.

No reliability or instrument-development information was given in the preceding studies. However, Harasymiw and Horne (1975) addressed the problem of reliability and instrument construction in their investigation of the effects of mainstreamed handicapped children on the attitudes of their classroom teachers, but they sampled only the posttreatment effects of nonrandomly assigned intact groups. Consequently, their results may have been affected by the sample, which, unlike those in the other studies, was large, and treatment novelty.

The studies measuring program effects used small, nonrandomized, nonrepresentative samples, mostly at the elementary level. Initial attitudes were never reported. Only Johnston (1972) used interviews and observations to validate the findings from the paper and pencil measures.

In generalizing teacher attitudes toward mainstreaming from studies designed to evaluate specific programs, care must be taken. Experimental teachers often are given some program initiation treatment before pre-measures are taken. Such orientation may be reflected in teachers' pretreatment scores, in which a cooperative and positive attitude toward the aims of the program is taken (Shotel et al., 1972). Teacher anticipation of aides, resource room help, and small class size may affect responses to posttreatment measurements.

Attitude Change

Theoretical Perspectives

Attitudes can be changed by various means: (a) acquisition of new information, (b) direct experience with the attitude object, (c) requiring a person to behave inconsistently with his existing attitudes, (d) fait accompli (a thing done that cannot be changed), and (e) psychotherapy--increasing one's insight into the bases of his/her attitudes. In order to employ these means effectively, the following five elements should be incorporated into the attitude change design:

1. Identify the attitude or attitudes to be modified.
2. Specify which aspect or aspects of the attitude or attitudes are of primary concern and how the outcome will be measured.
3. Determine how the attitude or attitudes function for individual(s) and specify the type of experience necessary to change its present function, if necessary.
4. Identify personality factors that may interfere with attempts to "persuade" the individual and adjust the approach accordingly.
5. Identify principles of attitude change that will maximize the effectiveness of the program. (McGuire, 1968; Triandis, 1971; Zimbardo & Ebbesen, 1970)

Messages from other people may contain information that will induce the receiver to change his attitudes. Attitude change theorists have divided the persuasive communication process into five independent variables: (a) source, (b) message, (c) channel, (d) receiver, and (e) destination (Greenwald et al., 1968; McGuire, 1968; Triandis, 1971).

Source factors, essentially, are the attributes of the perceived source of the message. The attributes include trustworthiness, credibility, attractiveness, powerfulness, perceived intent to persuade, and similarity to the receiver.

Message factors include the style, content, and structure of what is said. Message factors include the kind of appeal used, the type of delivery style, whether the conclusion is made explicit, how opposition arguments are dealt with, and the order in which the material is presented.

Channel factors pertain to the medium and modality through which the message is presented. Considerations related to channel factors include auditory vs. visual modalities, spoken vs. written modalities, mass media vs. face-to-face communication, and direct experience with the object of the attitude.

Receiver factors are the characteristics of the person who is receiving the message. They include personality, ability, and the extent of the receiver's active participation in the communication process.

Destination factors relate to the exact target of the message. They include the type of issue at which the persuasive induction is aimed, long- vs. short-term effects, or verbal vs. behavioral changes.

Six consecutive processes operate in persuasion situations to change attitudes: (a) communication of a message, (b) attention to the message, (c) comprehension of the message, (d) yielding, (e) retention of yielding, and (f) performance of the recommended behavior. All six processes must take place for attitude change to be induced. Each process is dependent upon the preceding one as a necessary but not a sufficient condition. The probability that a persuasive message will actually be communicated is less than unity (unity=1.0; if a message is always communicated the probability is 1.0; less frequent communications would be less than unity). There is some conditional probability that the receiver will adequately attend to such a message if it is presented. Given adequate attention, the probability that the arguments and conclusions being urged will be comprehended is again less than unity. Then, given adequate message comprehension, the probability that the receiver will yield to and be convinced by the arguments he or she has heard is less than unity. Even when the person immediately yields to the argument, the probability that he or she will retain this newly adopted position is less than unity. Only after a period of time can the effect be measured. Furthermore, the measure of attitude change effect often involves gross behavior which has only a certain probability of occurrence, even given that the ideological yielding is retained (Greenwald et al., 1968; McGuire, 1968; Triandis, 1971).

Obviously, attitude change is complex. However, by studying the factors that are likely to increase the probability of activating each successive stage, a systematic method can be developed by which persuasive communications can modify attitudes. In Table 1, there is given a simple matrix incorporating the factors in each of the six processes. By combining the acquired information on the nature of attitudes and the functions they serve with the matrix factors, the means to modify attitudes toward mainstreaming and other special education areas of interest are available. Although the contents of the matrix are supported by empirical investigations, their utility in the special education attitude-change context is unknown. Therefore the next step is to test the principles within the context of our special education interests and concerns.

Modifying Attitudes Toward Exceptional Children

An early study of the modification of attitudes of regular classroom teachers toward exceptional children, conducted by Haring et al. (1958), was designed to ascertain the extent to which demonstrations, discussion groups, visitations, and lectures covering eight areas of exceptionality led to increased acceptance. The authors found the workshop format highly effective for increasing the participants' knowledge of handicapped children. However, the teachers did not show a marked increase in their ability to become more realistic about the placement of exceptional children. Teachers who were interacting with exceptional children concurrent with the workshop appeared to be more accepting of the children and more realistic about placement than teachers without the workshop experience. Knowledge alone was not a significant factor in modifying attitudes.

More recent inservice programs that were designed to change teacher attitudes used seminars supplemented by practicum placement (Brooks & Bransford, 1971); focused on developing competencies in diagnostic, remediation-intervention, and interpersonal relationship skills (Glass & Meckler, 1972); developed simulations and role plays (Guskin, 1973); used the laboratory experiential approach (Yates, 1973); and structured consultation sessions (Schorn, 1977). Soloway (1976), Hibbler (1976), and Skrtic (1977) also reported on inservice train-

Table 1

A Matrix for Persuasive Communication: Determinants Likely to Activate the Attitude Change Process

Influence	Attention	Comprehension	Yielding	Retention	Action
	(The Problem of Selective Exposure	(The Problem of Understanding)	(The Problem of Conformity)	(The Problem of Memory of the Attitude Change)	(The Problem of Relationship of Verbal Behavior and Other Behaviors)
Source Factors Credibility Attractiveness Power	Attend better to unusual, exotic, and prestigeful source, dynamic.	Comprehend better if the source is familiar with the receiver. Then, it is likely to produce message that will be of maximum effectiveness.	The power of the source leads to compliance. Its attractiveness most likely leads to identification; and its credibility would most likely lead to internalization.	Powerful or attractive sources that are constantly present and reassert their messages are more likely to increase the retention of the message. If receiver finds himself in an environment in which reinforcements are similar to those under the control of the source of attitude change, he is likely to maintain his new attitude.	Powerful sources are more likely to encourage action.
Message Factors Style Structure Content	Attends better to message containing controversial, interesting elements. And, is non-ego involving.	Comprehend better if message fits into receiver's frame of references, clear, easy to understand, and does not make the receiver defensive.	Compliance more likely if message makes it clear that there will be positive reinforcements if a given position is adopted. Also messages that describe how adoption of a particular point of view will be consistent while the subject's values would maximize internalization.	The more frequently a message is presented, the longer it is likely to be retained.	Action depends on more than attitudes, established habits, expectancies or reinforcement, and group norms are among the other independent variables that determine action. Adoption is more likely if the cognitive components of attitudes are consistent with it.

Influence	Attention	Comprehension	Yielding	Retention	Action
Channel Factors Auditory versus visual modalities, mass media versus face-to-face communication. Direct experience with object of the attitude.	Attends better to face-to-face contact with the object of the attitude.	Comprehend better if receiver is allowed to proceed at his own pace, as in reading, asking questions, and obtaining clarification, and face-to-face encounters.	Face-to-face communication usually more effective than communication via other channels in maximizing yielding.	Certain channels like television and radio can more easily maximize the repetition variables than is possible in face-to-face encounters. The source might become inhibited about repeating the message.	Active participation is more effective in changing attitudes than passive exposure to persuasive communication. Participation leads to active cognitive work that is likely to change attitudes. Role-playing has been used to produce changes in a person's personality which results in new insight into old positions increasing possibility of change to new position.
Receiver Factors	Attends better when actively involved.	Comprehend better when receiver is not defensive.	Receivers who are more receptive to new information and are more able to tolerate inconsistency are more likely to yield.	There are various kinds of memory abilities, such as memory for numbers, for figures, for words, for behaviors, and so on. Those persons who are high on those aspects of memory that are contained in the message are more likely to retain it.	**Receiver Factors** Their acceptance might be affected by new information which refutes their existing beliefs, by a reward for agreeing with the position, by insights into the irrational aspects of their original attitude by fear of rejection, or of being deviants. The relative advantage of the new idea affects its rate of adoption.

Destination Factors Long versus short term effects and delayed action effects. Direct persuasive impact versus its resistance against subsequent counterarguments.	A communication from a positive source leads to more rapid decay of attitude change over time.	A complex or subtle message produces slower decay of attitude change.	Attitude change is more persistent over time if the receiver actively participates in, rather than passively receives, the communication.	Repeating a communication tends to prolong its influence.	More of the desired opinion change may be found sometime after exposure to the communication than immediately following exposure.

ing that was designed, in part, to influence teacher attitudes.

Skrtic (1977) investigated the influence of inservice training on the attitudes and behavior of 20 regular classroom teachers toward LD students. A 9-hour inservice program made up of three components and addressing the affective domain was conducted over a 6-week period. In addition to giving information on and necessary teaching skills for educating LD students in regular classrooms, the inservice program was "designed to create a state of emotional disorganization in the participants thereby reducing their resistance to attitude change" (p. 7692-A). Skrtic concluded that the attitudes of teachers improved toward LD children as a result of the program. Using the Whaley and Loney Teacher Disapproval Scale, an instrument measuring "student perceived teacher approval and disapproval behavior," the investigator found no change in student-perceived teacher behavior. The study's attempt to validate the use of self-report measures that were designed for use with teachers is a methodological strategy rarely employed by investigators studying teachers' attitudes and is worthy of note. Although the student self-report device is subject to sources of potential invalidity, its use in lieu of direct observation of teacher behavior merits attention.

Carlson and Potter (1972) designed a one-year program to train rural elementary teachers to meet the needs of exceptional children. The participants were five experienced and five inexperienced teachers; the design included a practicum placement (engineered classroom setting). The participants attended seminars dealing with assessment, remediation, classroom management, and precision-teaching strategies. The assessment measure was an open-ended questionnaire. The authors reported that all participants felt more confident about teaching children with problems, and 80 percent attributed the change to the practicum involvement. The responses were viewed as indicating that the program changed teachers' attitudes.

Orlansky (1977), in an introductory college course in special education, studied the effects of two different instructional methods on teachers' achievements and attitudes toward exceptional children. The experimental method of instruction was non-lecture, active learning, consisting of role playing, group problem-solving simulations, and discussions. The control group was presented with the curriculum via lectures only. No significant difference was found in achievement between the experimental and control groups in relation to general knowledge of special education; however, in the experimental group, a slightly more positive general effect was found in students' attitudes toward exceptional children.

Some techniques appear to be more effective than others in producing positive attitude shifts toward the handicapped students. Clore and Jeffrey (1972) reported that role playing a disability created empathy for the disabled, allowing participants to acquire first-hand knowledge of the problems encountered by physically handicapped individuals. Alese (1973) reported a small but significant change in men's attitudes toward greater acceptance of mentally retarded students after watching a film showing retarded students in productive activities. Donaldson and Martinson (1977) reported that both live and video presentations of individuals with visible physical disabilities affected attitudes toward the disabilities as measured by the Attitudes Toward Disabled Persons Scale.

Summary and critique of studies. With the exception of a few doctoral dissertations (Hibbler 1976, Orlansky 1977, Soloway 1974) and the investigations of the attitudes toward physical disabilities, the majority of the studies display significant methodological weaknesses that were seldom acknowledged by the researchers. Frequently, the teacher samples were not fully described and appropriate random selection procedures were not used. In most cases, a single intact group was exposed to treatment (inservice, pre-service, or workshop) and the effects were then measured. These designs do not sufficiently control extraneous variables and, hence, their results are not suitable for comparison; although investigators attributed attitude change to the experimental treatment, many other factors could have confounded the results (e.g., history, maturation, testing, biases resulting from selection).

Verbal reports, said to be indicative of teachers' attitudes, were employed almost exclusively, yet there is evidence that information gathered solely in this manner is often biased and subject to additional sources of invalidity. Frequently, researchers assume that expressed attitudes are reliable behavioral indicators although there is no certainty that "attitude scores" reflect substantive change in the behaviors of teachers toward children. The discrepancy must be the central concern for educators who are interested in changing teachers' attitudes.

Many investigators indicated that their dependent measures assessed teachers' attitudes. In fact, most instruments assessed information on and knowledge of handicapped children by measuring only one attitudinal component. When attitude scales are used, test validity and data on test reliability are seldom reported, indicating perhaps, that researchers are ignoring procedures that contribute to adequate attitude-scale construction.

There was little follow-up of teachers subsequent to training. If the training indeed did result in significant attitude change, we have no assurance that the change was internalized by teachers and that it persisted over time.

The methodological problems limit the generalization of the data. Furthermore, no study discussed the theory that explained the phenomena under investigation. Too often the predictions lacked substance because they were not tied to a solid conceptual base; theory would have enabled the investigators to go beyond the empirical data to see implications and relations. Most studies dealt superficially with outcomes; conclusions, thus, were simplistic. It is difficult to find unifying themes across studies; on the whole, the themes that can be discerned have little utility for practitioners who are interested in developing coherent, systematic training programs. Nevertheless, the following conclusions seem to be supported by the studies:

Information, knowledge, skill training, or direct contact with children in isolation does not contribute to change in teachers' attitudes.

Coupling skill training with experiential learning and supervised contact enhances teachers' attitudes and their ability and willingness to work with handicapped children.

Certain variables should be isolated and systematically studied before knowledge derived from the research can be translated into educational practice. For example, particular individual, demographic (age and sex), and social psychological factors, including personality differences, motivation for holding particular attitudes, and amount of contact and knowledge of children with special needs may be differentially related to training outcomes. Also, attitudes toward the various special education populations may evoke differential responses by participants in training.

Summary, Conclusions, and Guidelines for Future Research and Program Development

An overview of extant research and reports on the nature of attitudes and attitude change and the literature on the assessment and modification of teacher attitudes toward handicapped students lead us to conclude that the results are very limited in applicability. A major problem is the lack of usable information in the reported studies so that replication is well nigh impossible.

On the basis of our assessment, we believe that it is probably unrealistic to expect formal, comprehensive, well-designed studies of teachers' attitudes toward mainstreaming (and the various components of the concept) to be conducted in the near future. However, systematic attacks on the problem using well-designed studies could add much information to the questions. A number of principles of attitude assessment and change can inform our efforts and hence, should be taken into account in future work. They are as follows:

1. Provide complete and precise defining characteristics of the "attitudinal object." Researchers too often assume that when respondents react to terms like "mentally retarded" or "mainstreaming" on a questionnaire they are revealing their attitudes toward an educational practice or specific handicapped population. In fact, exceptionality labels like "mentally retarded" and "mentally handicapped" are easily confused, and the term of "mainstreaming" implies a host of administrative arrangements and educational practices that vary as a function of state and local philosophies.

2. Use an appropriate definition for an attitude; indicate attitude complexity by differentiating its components. Consistent use of defined terms contribute to an organized, congruent set of findings.

3. Acknowledge the assumptions and limitations of the study. When studying teachers' attitudes admit that the relation between teacher attitude and student and other outcomes is unclear. The study, nevertheless, should consider the attitude-behavior consistency issue and attempt to establish such a relation. This means that, to the extent possible, nonobtrusive measures and those that reflect actual behavior should supplement paper-and-pencil measurements.

4. Reflect awareness of the process and persistence of attitude change. That is, give attention to variables and procedures that relate to long-term attitudinal change and to factors that contribute to the persistence of change.

5. Use data-gathering methods and procedures that have been empirically established as valid and reliable; validate paper-and-pencil measures with direct observation to look for evidence of behavioral intent; and try to control for bias, using measures that provide different methodological strengths.

6. When trying to change attitudes, assess the outcomes that are consistent with training goals. For example, if the objective of training is attitude change, measuring knowledge about the attitude object is assessing only one part of the attitude; other components

should be included and evaluated. Attitude measures should not be used to evaluate teacher-skill performance; in such cases objective measures of teacher comptency would be more appropriate.

7. Fully describe the population in the study, including situational data, and the special characteristics of the target population. When possible, randomly select and assign individuals to treatment and control groups for comparative purposes and control for internal and external validity to permit generalizing from the data.

8. Specify the components, procedures, techniques, and strategies in order to establish cause and effect relations, thus permitting replication of the study and increasing the feasibility of implementing the program in the field.

References

Alese, J. A. Operation awareness. Mental Retardation, 1973, 2, 5, 38-39.

Barngrover, E. A study of educators' preferences in special education programs. Exceptional Children, 1971, 37, 754-55.

Bem, D. Beliefs, attitudes and human affairs. Belmont, CA: Brooks/Cole, 1970.

Birch, J. W. Mainstreaming: Educable mentally retarded children in regular classes. Reston, VA: The Council for Exceptipnal Children, 1974.

Bradfield, H.R., Brown, J., Kaplan, P., Richert, E., & Stannard, R. The special child in the regular classroom. Exceptional Children, 1973, 39, 384-90.

Brooks, B. L., & Bransford, L. A. Modification of teachers' attitudes toward exceptional children. Exceptional Children, 1971, 38, 259-60.

Carlson, L. B., & Potter, R. E. Training classroom teachers to provide in-class educational services for exceptional children in rural areas. Journal of School Psychology, 1972, 10, 147-51.

Clore, G. L., & Jeffrey, K. M. Emotional role playing, attitude change and attraction toward a disabled person. Journal of Personality and Social Psychology, 1972, 23, 85-95.

Combs, R. H., & Harper, J. L. Effects of labels on attitudes of educators toward handicapped children. Exceptional Children, 1967, 33, 399-403.

Dabney, M. G. Curriculum building and implementation in mainstream settings: Some concepts and propositions. In R. L. Jones (Ed.), Mainstreaming and the minority child. Reston, VA: Council for Exceptional Children, 1976.

Donaldson, J., & Martinson, M. Modifying attitudes toward exceptional persons. Exceptional Children, 1977, 43, 337-41.

Efron, R. E., & Efron, H. Y. Measurement of attitudes toward the retarded and an application with educators. American Journal of Mental Deficiency, 1968, 72, 100-107.

Festinger, L. *A theory of cognitive dissonance*. Stanford: Stanford University Press, 1957.

Glass, R. M., & Meckler, R. S. Preparing elementary teachers to instruct mildly handicapped children in regular classrooms: A summer workshop. *Exceptional Children*, 1972, *39*, 152-56.

Gottlieb, J., & Corman, L. Public attitudes toward mentally retarded children. *American Journal of Mental Deficiency*, 1975, *80*, 72-80.

Greenwald, G., & Brock, T. C. *Psychological foundations of attitudes*. New York: Academic, 1968.

Gross, S. J., & Niman, C. M. Attitude-behavior consistency: A review. *The Public Opinion Quarterly*, 1975, *39*, 358-68.

Guerin, G. R., & Szatlocky, K. Integration programs for the mildly retarded. *Exceptional Children*, 1974, *41*, 637-43.

Guskin, S. Simulation games for teachers on the mainstreaming of mildly handicapped chilren. *Viewpoints*, 1973, *49*, 85-95.

Harasymiw, S. J., & Horne, M. D. Integration of handicapped children: Its effect on teacher attitudes. *Education*, 1975, *96*, 153-58.

Haring, N. G., Cruickshank, W. M., & Stern, G. G. *Attitudes of educators toward exceptional children.* Syracuse, NY: Syracuse University Press, 1958.

Hibbler, S. An assessment of regular classroom teachers' attitudes toward exceptional children subsequent to training in mainstreaming. *Dissertation Abstracts*, 1976, *37*, 3, 13071.

Johnston, W. A study to determine teacher attitudes toward teaching special children with regular children, 1972. (ERIC Document 065 950)

Jones, R. L. The hierarchical structure of attitudes toward the exceptional. *Exceptional Children*, 1974, *40*, 430-35.

Jones, R. L. Special education and the future: Some questions to be answered and answers to be questioned. In M. C. Reynolds (Ed.), *Futures of education for exceptional students: Emerging structures*. Reston, VA: Council for Exceptional Children, 1978, 65-87.

Jones, R. L., Gottfried, N. W., & Owens, A. The social distance of the exceptional: A study at the high school level. *Exceptional Children*, 1966, *32*, 551-56.

Kingsley, R. F. Prevailing attitudes toward exceptional children. *Education*, 1967, *87*, 426-30.

Martin, E. Integration of the handicapped child into regular schools. In M.C. Reynolds (Ed.), *Mainstreaming: Origins and implications*. Reston, VA: Council for Exceptional Children, 1976, 3-5.

McGuire, W. J. The nature of attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (Vol.III). Reading, Mass.: Addison, Wesley, 1968, 136-314.

Orlansky, M.D. The effects of two different instructional methods on student achievement and attitudes toward exceptional children in an introductory college course in special education. *Dissertation Abstracts*, 1977, *38*, 1332-A.

Phelps, W. R. Responses of teachers and non-teachers regarding placement of exceptional children. *National Technical Information Service*, U.S. Department of Commerce, Springfield, VA, 1974. (ED 102 743)

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Proctor, D. I. An investigation of the relationships between knowledge of exceptional children, kind and amount of experience, and attitudes toward their classroom integration. Dissertation Abstracts, 1967, 28, 1721-A.

Schorn, F. R. A study of an in-service practicum's effects on teachers' attitudes about mainstreaming. Dissertation Abstracts, 1977, 37, 9, 5762-A.

Schuman, H., & Johnson, M. P. Attitudes and behavior. In A. Inkeles (Ed.), Annual review of sociology, 1976. Palo Alto: Annual Reviews, 1976, 161-207.

Shaw, M. E., & Dostanzo, P. R. Theories of social psychology. New York: McGraw-Hill, 1970.

Shaw, S. F., & Gillung, T. B. Efficacy of a college course for regular class teachers of the mildly handicapped. Mental Retardation, 1975, 13, 3-6.

Shotel, J. R., Iano, R. P., & McGettigan, J. F. Teacher attitudes associated with the integration of handicapped children. Exceptional Children, 1972, 38, 677-83.

Siller, J. Studies in reaction to disability. XII: Structure of attitudes toward the physically disabled; Disability factor scales--amputation, blindness, cosmetic conditions. New York: New York University, School of Education, 1967.

Skrtic, T. M. The influence of inservice on the attitudes and behaviors of regular classroom teachers toward mainstreamed learning disabled students. Dissertation Abstract, 1977, 37, 11, 7692-A.

Soloway, M. M. The development and evaluation of a special education in-service training program for regular classroom teachers. Dissertation Abstracts, 1976, 36, 7, 4425-A.

Sosnowsky, W. P. & Colemen, T. M. Special Education in the collective bargaining process. Phi Delta Kappan, 1971, 52, 610-13.

Triandis, H. C. Attitude and attitude change. New York: Wiley & Sons, 1971.

Wandt, E. The measurement of teacher attitudes toward groups contacted in the school. Journal of Educational Research, 1952, 46, 113-22.

Warren, S. A., Turner, D. R., & Brody, D. S. Can education students' attitudes toward the retarded be changed? Mental Retardation, 1964, 2, 235-42.

Wicker, A. W. Attitudes vs. actions; The relationship of verbal and overt behavioral responses to attitude objects. Journal of Social Issues, 1969, 25, 41-78.

Yates, J. R. A model for preparing regular classroom teachers for "mainstreaming." Exceptional Children, 1973, 40, 471-72.

Zimbardo, P., & Ebbesen, E. B. Influencing attitudes and changing behavior. Reading, Mass: Addison-Wesley, 1970.

Accessibility and Barrier-Free Design

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Public Law 94-142 (The Education for All Handicapped Children Act of 1975) and the educational provisions of Section 504 clearly state that all providers of education programs who receive HEW (Health, Education, and Welfare) funds are required to make "reasonable accommodation" so that facilities will be accessible to disabled persons. It is the intent of this chapter and the following bibliography to demonstrate how this purpose can be achieved.

The enactment of the two laws is only a beginning. Although laws dictate the parameters of unacceptable behavior they alone cannot alter attitudes. In a mythical "best of all worlds" it might be comforting to think that a universal attitude of mutual help prevailed. Historically, however, except in very small groups this attitude has not been a reality. We must deal with present-day attitudes, behaviors, and laws.

The reality is that an appeal to humanitarian equality has not been an impetus for change. There have been some changes in equality and environmental access in this country but only as a result of legal coercion and enforcement.

Mainstreaming and barrier-free environments, which are mandated by the laws, enable persons with disabilities to be integrated into regular classrooms and communities. Let us briefly now look at the specific law from which accessibility derives its mandate.

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Section 504

Section 504 has been referred to as the first federal civil rights law protecting the rights of handicapped individuals. It is part of the Rehabilitation Act of 1973 (Public Law 93-112) which became law that year. Originally, Section 504 only applied to employment discrimination. However, the Rehabilitation Act Amendments of 1974 (Public Law 93-516) extended the coverage of Section 504 to all areas of civil rights. Section 504 now covers education (including postsecondary and vocational training), employment, health, welfare, and social service programs.

The regulations of Section 504 were signed by then-President Carter in the spring of 1977. They apply to all recipients of federal funds although each agency has issued its own specific regulations.

Section 504 of the Rehabilitation Act of 1973 states as follows:

> No qualified handicapped individual shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. (S. 84.4)

The Act further defines a handicapped person as

> Any person who: Has a physical or mental impairment which substantially limits one or more major life activities; has a record of such an impairment; is regarded as having such an impairment. (S. 84.3)

What are the implications of the Act for barrier-free design in school settings? For the purpose of this discussion we use the term "barriers" to refer to those parts of a building or structure that prevent its use by all persons. In schools, the persons include children and adults with vision and hearing impairments as well as persons with orthopedic and neurological disabilities. It is important to note that children and adolescents are not the sole users of school buildings. Able-bodied students often have disabled parents who may need freedom from barriers to attend parent-teacher conferences and school programs, and adult staff members in a school building may have disabilities that require barrier-free design. And the general public, including those persons with disabilities, also have many legitimate needs for access to schools, such as voting during elections and public meetings. The needs of all these diverse groups must be considered when we speak of barrier-free design in schools.

Architectural Barriers

Recognizing impediments is the first step to removing specific barriers. Some of the major architectural barriers that are commonly found in schools and public buildings are discussed in this section. Although some are more obvious than others, all are important and each needs to be addressed.

Entrance Barriers

As a first consideration, structures should permit uninterrupted access to their entrances and all levels and parts. This consideration begins with parking which, in schools, is needed by parents, staff members, and the general public who may have orthopedic or other disabilities. Reserved parking spaces should be set aside for them close to the building entrance to avoid a long, arduous journey over a parking lot whose surface, terrain, and distance may be difficult for some people to manage. Therefore, parking for persons with handicaps should be within 100 feet (30M) of an accessible building entrance. These reserved parking spaces should be designated by signs that are mounted at a height of between 36 and 72 inches (91-183 cm) above grade. In addition, an enforcement system should be set up to ensure their authorized use. For handicapped people who do not drive themselves, drop-off places at building entrances increase accessibility. And for school children with handicaps who are transported in special vehicles, it is important that their delivery and pick-up locations do not segregate or stigmatize them. For example, separate bus stops for children with disabilities that are located at the rear of a building and away from all other children is not in keeping with the spirit of mainstreaming. It is far better to provide any necessary protection or safety measures within the area used by the general student body.

Curb cuts and ramps are another important consideration for building access and should be provided from parking spaces to the sidewalks that lead to accessible building entrances. Curb cuts and ramps must be at least 42 inches (107 cm) wide to accommodate wheelchairs and allow for maneuverability. The surface of ramps and curb cuts should be textured to provide traction for wheelchairs and aid blind persons using canes. The slope of a ramp should be gradual to allow a wheelchair user to navigate the ramp without assistance. The slope should not exceed a 1 in 12 unit rise, that is, a one-inch rise for every 12 inches of ramp.

When a person leaves the parking or drop-off point, he or she is often confronted by a flight of stairs. They are barriers to many people other than wheelchair users: the temporarily disabled, young children, and some elderly persons.

The door at the end of a flight of stairs can present another obstacle. Many building entrance doors are too heavy for some people to use. Because of size and awkwardness, some doors cannot be opened in one smooth arc, the movement required by a wheelchair user. A door that is too narrow renders passage through it in a wheelchair impossible. The clear opening from a door in its open position to the opposite door stop should be a minimum of 32 inches (81 cm); however, if the door is too wide, it will not be manageable by a person sitting in a wheelchair. Therefore, the door should be between 32 and 48 inches wide.

An architect considering the individual needs of special populations may find herself or himself confronting conflicting interests. Such a possible conflict exists about door size. A main entrance door needs to be quite wide for many groups of people, especially those like young children or persons using walkers who need people at their sides to guide them. Yet a door that is too wide is inoperable by a person in a wheelchair. In the face of such conflicts, alterations, additions, and sometimes duplications are necessary. For example, two main entrance doors could be constructed, one 48 or less inches wide for use by the public and persons in wheelchairs, the second, wider and perhaps opened by an electric eye for other populations.

The needs of all persons are not met in the same manner. The recognition of a pluralistic society requires the recognition of pluralistic needs. Meeting these various needs requires understanding, innovation, planning, and revenue.

Primary Facilities

Inside a school or public building, the primary facilities must be accessible to all persons. For example, all persons should be able to be seated in a restaurant and use a checkout lane in a supermarket, a counter at a bank, a bookshelf in a library, a desk in an office, a work area in an assembly line, and the educational facilities of a school. In order for this degree of accessibility to be attained, attention must be paid to many details, including room identification, seating space, aisles, shelves, desk and work space, and sports areas. This listing is by no means exhaustive but it demonstrates the many facets of accessibility.

Mainstreaming in particular is concerned with the many aspects of public schools' accessibility which must be addressed in order to integrate children with handicaps. For example, signs that identify rooms should be placed on the wall adjacent to the door and not on the door itself; thus, identification is possible even when the door is open. Although there is some debate on this topic, some people feel that the room sign also should have a braille sign right next to it. Depending on the age and size of the school population, signs should be placed at an appropriate height. The following chart specifies the optimal height of the bottom edge of wall signs:

WALL SIGN HEIGHT REQUIREMENTS

Student Group	Lower Sign	Upper Sign
Preschool	---	58"-62" (147-157 cm)
Lower Elementary	24"-36" (61-91 cm)	58"-62" (147-157 cm)
Upper Elem/Jr. High	32"-48" (81-122 cm)	58"-62" (147-157 cm)

Inside the classroom, consideration must be given to the floor covering. Whenever possible, the floor should be hard surfaced. If a carpet is used, it should have a low pile with a tight weave; it should not be a shag style. The short pile allows easier movement for a wheelchair. As a safety measure for all, and a mobility issue for wheelchair users, throw rugs and small mats should not be used.

The seating space in the classroom also requires special attention. To accommodate a wheelchair, clear space must be allotted with the dimensions of 48 by 36 inches (122 x 91 cm) to allow for the positioning of the wheelchair in an aisle arrangement of desks and chairs. At corners or other places where aisles turn, at least 42 inches (107 cm) should be allowed to permit the wheelchair to turn.

Desks, tables, study areas, and work counters all should be scaled to the size of the user population. This means that a person in a wheelchair may need a desk that is higher than one used by an able-bodied peer. It also means that desks with attached seats and work counters with permanently affixed stools do not meet the needs of all students. Flexibility in furniture design greatly enhances accessibility. Because of individual differences, accommodations must differ according to persons and needs. For this reason, adaptable or adjustable furniture design is a feature to be encouraged.

Other special areas of a school, such as the library, gym, swimming pool, cafeteria, and locker rooms, also must be free of architectural barriers. Attention should be paid to the many uses of these facilities so that all persons can benefit from them. Let us now look briefly at these necessary but often overlooked structural modifications.

Wherever an entrance has a turnstile (e.g., libraries, athletic fields, stores), some alternative access also must be provided, such as an adjacent gate that is at least 32 inches (81 cm) wide. In a library, book shelves and the drawers of the card file should be within 48 inches (122 cm) of the floor. In a cafeteria, attention must be paid to the height of serving counters and tables as well as level access into the room itself. Angled mirrors often help to display food that otherwise is not visible to someone in a wheelchair.

The need and desire for sports participation by disabled persons must not be overlooked. With a few modifications, the swimming pool can be made accessible to many people with diverse conditions. School swimming pools often are opened to entire communities during evenings and weekends. At such times, a range of consumers--very young, very old, and disabled persons--may avail themselves of this recreation. Each group could benefit from architectural alterations. First, a ramp should allow entry to the shallow end of the pool. It should have a handrail of stainless steel or aluminum on each side. With the same gradation of slope (1:12) as other ramps, the pool ramp would allow many more people to use the pool with ease and safety. Pool depth should be graduated from a shallow end that does not exceed 24 inches (61 cm). The depth should be marked in braille or raised markings on both the pool edge and gutter to enable a person to read the markings when in the pool as well as standing on the outside edge. Underwater lights should be installed to assist persons with limited visual acuity.

Locker and shower room facilities also need to be designed for people with different needs. This means that slopes and ramps should lead to shower areas and step-over tile moldings should be avoided. It also means aisles wide enough for a wheelchair (36") and consideration of height when installing controls and levers on showers and other equipment. The small knobs on some showers and sink basins make them inoperable to many people. A lever permits control with arms or elbows by persons who are not so deft with their hands.

Although this discussion covers only the broadest of concerns, the test of accessible school facilities is to enable all students to participate in the broad-based educational activities schools are meant to provide. Thus, after entry and primary use barriers are addressed, secondary or support facilities must be considered.

Support Facilities

The support facilities of a building include restrooms, telephones, drinking fountains, waiting rooms, and elevators.

The lack of access to public toilets can be a humiliating dilemma. Because many restrooms are located at the top or bottom of a flight of stairs with no other access, they are unavailable to many people with limited mobility. A first requirement, therefore, is that toilet rooms be located on the first floor and/or elevator access to toilet rooms on other floors be provided. Like other doors, those opening to toilet rooms should be wide enough to accommodate wheelchairs. Once inside, there should be a minimum clear space of 5 by 5 feet (152 x 152 cm) to permit a wheelchair user to turn around. The doors to toilet stalls should swing out and be at least 32 inches wide. If the toilet is located in a side entry stall, a clear floor space of 4 by 4 feet outside the stall entrance is needed. Handrails should be installed on the walls inside the stall for persons with restricted mobility. The flush control and paper holder should be scaled in height to the population using these facilities. Similarly, a person in a wheelchair should have access to all other restroom accessories: towel dispenser, hand dryer, waste paper basket, sink, shelves, counters, and mirrors.

Telephones, another essential support facility, must be available to all persons. Telephone booths meet the needs of some people but exclude many others who are extremely large, tall, short, or in a wheelchair. Therefore, a wall-mounted phone placed in an alcove which is wide enough to admit a wheelchair is needed in addition to or in place of regular phone booths. An alcove allows the use of the phone without a wheelchair protruding into the hallway and obstructing pedestrian traffic. In public areas with much pedestrian traffic, such as airports and shopping malls, squares of four open cubicles have been constructed. In this arrangement, the height of phones and counters can vary to provide easier access to people of various heights. Attention must be given to the placement of the coin slot as well as the dial or push buttons. A limited number of phones that meet such requirements also should include an amplifier for persons with hearing disabilities. Phones designed for persons with disabilities should be specifically marked and recognizable to all potential users.

Another important support facility is the drinking fountain or water cooler. Again, height is a prime consideration. At least one drinking fountain should be accessible to small children and persons in wheelchairs. For adults, the distance from drinking spout to floor should be 35-37 inches, and the dimensions should be scaled for smaller or younger students. If the drinking fountain is wall mounted, it should be placed in an alcove which is at least 32 inches wide. Many types of wall mounts are available; one accessible type is semi-recessed or surfaced mounted; each allows use from a wheelchair. Although a standard mount (tall, free-standing unit) is not accessible to persons in wheelchairs and children, a lowered side unit can be attached to the free standing unit to make it accessible. The controls that regulate the water flow also must be considered. The preferred control is a hand-operated lever rather than a knob, push button, or foot control. It allows someone with limited dexterity or muscle control to use the drinking fountain more readily.

The preceding discussion on the accessibility of a building's primary and support facilities is not meant to be exhaustive. Rather, it is but a cursory look at the scope of the barrier-free design movement. We hope that it will help readers to gain some understanding of the myriad obstacles that hinder movement for persons with disabilities. The intent of the first part of this chapter is to make readers aware of the pervasiveness of environmental barriers and of the many persons who are affected by restricted environments.

Nomenclature and Symbolism

Educators especially are aware of the inconsistency and confusion in the vocabulary used in reference to physical and sensory disabilities. The various terms include "physically handicapped," "sensory impaired," "the disabled," "handicapped persons," and "people with handicaps," for example. Although the list is long and contains some pejorative terms, they share one common characteristic: All assume a we/they dichotomy. The "we" is assumed to be an able-bodied majority that has no disabilities and no need for special help. The "they" is assumed to be a disabled minority who need special help and architectural alterations. When we accept these mutually exclusive, polar definitions we add to the derogation already present and perpetuate existing stereotypes. However, when one assesses the life-span development of individuals, it is easier to see the stages of ability and disability we all pass through. At specific times, everyone needs the help of architectural modifications and a barrier-free environment. Everyone. To fail to understand this point is to misunderstand the scope of the barrier-free design movement.

Because this chapter is in a book focusing on mainstreaming, it is natural to think of the application of barrier-free design to public schools. Of course, there are direct and obvious applications within such settings. But there are broader applications of barrier-free design as well which are best understood if we look at the life-span developmental approach to ability and disability.

From birth through the first several years of life, infants and young children do not have the strength, stature, or intellectual ability to enter and make use of public buildings. That seems obvious. But to the extent buildings are inaccessible to young children, they also may be inaccessible to the caretakers of young children. Doors that cannot be opened by a young child are just as cumbersome to a mother with one or two small children; and steps and curbs make many entrances unapproachable to persons using baby vehicles.

Because pregnancy often means a reduction in mobility, agility, stamina, and balance, many things in the environment become impediments, such as stairs without railings and revolving doors.

Accidents, illness, and surgical recuperation are sources of temporary disability for many people of all ages. At such times crutches, body casts, and wheelchairs become temporary necessities with their concomitant obstacles. This type of disability can affect anyone at any time.

The natural process of aging affects us all if we live long enough. A gradual loss of physical and perceptual faculties is common among the elderly and results in a need for adaptations in the environment. With a loss of strength, heavy doors become barriers; with a loss of agility and stamina, stairs are barriers; and the loss of visual acuity often means the difference between safety and mishap.

An additional nine per cent of the adult population of this country sustains some sort of disabling condition. The percentage means that one in every 11 adults has a physical disability requiring some degree of environmental adaptation. This is a low estimate because it is from an old (1970) United States Census that did not specifically identify handicapped persons or include children.

When we review all the groups who can benefit from some adaptation of the environment to enjoy the use of public facilities with ease and safety, the list becomes quite long. It includes infants, young children, caretakers of young children, pregnant women, accident victims, recuperating surgical patients, persons with chronic illness, persons of atypical size (exceptionally short, tall, or obese), persons with physical disabilities, and many elderly individuals. The list is as noteworthy for its exclusions as for its inclusions.

One might justifiably ask, "Who doesn't need a barrier-free environment?" It appears that the existing facilities are ideal only for a small minority of users: strong, large, healthy adults in their late teens or early twenties with no sensory impairments. What about the rest of us? Clearly, we operate under a handicap in the present environment.

"T.A.B."

For a certain segment of society, the concept of disability has no personal, experiential relevance. To a young adult, the days of childhood disabilities seem to be part of a distant, never-to-be-repeated past. The possible disabilities generated by old age seem equally distant and nonrelevant to the young. And for many men, the months of advanced pregnancy and the problems of caring for young children are alien; they are unable to empathize with the problems of such women and children. Even the occasional needs of middle age, such as coronary attacks, high blood pressure, obesity, arthritis, and back problems may seem unrelated to people who are not experiencing them.

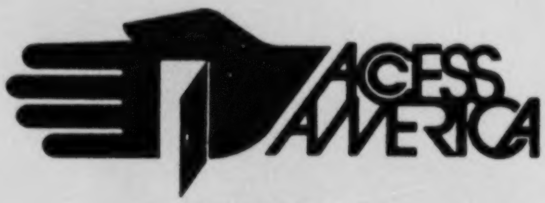
It is with the knowledge of the many people who think of disability as a "they" problem - something that will never affect "us" - that new terminology has emerged. The new word (initials, in fact) is "T.A.B." - "temporarily able-bodied." It is hoped that a change in consciousness will be engendered by this change in nomenclature. Currently able-bodied persons should be aware of the possible transitory nature of that condition, and all persons should be aware that physical, sensory, and mental facilities are not guaranteed by the human condition. Those of us who were born with disabilities know this fact inherently; but those of us who were born without obvious disabilities too often confuse our present condition with a promise for tomorrow.

Access Symbol

Currently, there is in use an international symbol of access. It depicts a person in a wheelchair and was designed to mark barrier-free facilities. Although the concept is laudable, the symbol is not. It misplaces the emphasis of barrier-free design. Instead of focusing on the accessible features of the environment, the symbol focuses on the disabilities of some users. In so doing, it reinforces the segregation and stigma of a small portion of users. It is not the inability or disability of individuals that this movement was designed to accentuate but, rather, good architectural design. Many people need and others can benefit from the use of architectural modifications. The wheelchair symbol appears to exclude these other possible users.

A psychological barrier has been created in the minds of many people when a "we/they" symbolism is used. Is this not parallel to using a black face in employment ads instead of the sentence, "An equal opportunity employer"? Surely, the equal opportunity reference does not solely refer to potential black employees any more than a wheelchair symbol refers solely to one disability group. We suggest that it is a matter of awareness which makes the black face sumbol so unacceptable whereas the wheelchair symbol goes unquestioned. The time has come to question it.

It is promising that other persons have begun to question the access symbol. Early in 1979, the Architectural and Transportation Barriers Compliance Board issued a new "Access America" logo which is reproduced here.



WASHINGTON, D.C.
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Trademark of the U.S. Architectural and Transportation Barriers Compliance Board

The open-hand logo cuts across all disabilities and accentuates architectural design rather than physical disability. The new trademark tries to remove the previous stereotype that accessibility only affects the permanently disabled person in a wheelchair. The new design is a positive approach to accessibility.

Another psychological barrier is created whenever architectural modifications are relegated to second-class status. When accessible entrances are isolated and given an institutional look, another barrier is created. Such accommodations carry a taboo. As a result, some people who could benefit from barrier-free design choose not to use these modifications at whatever cost to themselves.

At the root of such situations is a question of dignity. Few of us would choose knowingly to place ourselves in situations that erode our dignity. Individual dignity should not be sacrificed in the name of accessibility. Persons responsible for designing and evaluating accessible environments must ask themselves if the quality, design, and convenience is what they would wish for themselves. It should be no less.

Conclusion

Barrier-free design is for everyone: those of us who are handicapped and those of us who have not yet acknowledged our handicaps. At various times in our lives and in varying degrees, all of us are disabled. To be disabled is to have a physical, sensory, mental, or emotional impairment that interferes with the major tasks of daily living. A disability is not the same as a handicap; the latter is created by the environment. A handicap occurs when something in the environment creates barriers or obstacles for disabled persons.

Barrier-free design is not a we/they issue. Modifying architectural barriers is not a gratuitous act performed by the able-bodied majority for the less fortunate few. It is not a charitable act. It is not a further example of the encroachment of Big Government into the lives of the average citizenry. It is not a subversive movement to seize the best parking places at the nation's shopping malls.

Barrier-free design is an effort to remove architectural impediments or obstacles in the environment. Mainstreaming cannot be totally successful while architectural barriers remain. Nor can society successfully integrate all its members without barrier-free environments.

Bibliography

Aiello, J., & Steinfeld, E. Accessible buildings for people with severe visual impairments. Syracuse: Syracuse University Press, 1979. (Research Report)

Association of Physical Plant Administrators of Universities and Colleges. Steps toward campus accessibility. Washington, D.C.: Author, 1979. (Photo essays) Available from: APPA, 11 Dupont Circle, Suite 250, Washington, D.C. 20036 ($5.50 prepaid).

Bartholomew, R. Indoor and outdoor space for mentally and physically handicapped children. Council of Planning Librarians, Monticello, IL, 1973. (Bibliography) Available from: CPL, P.O. Box 229, Monticello, Illinois 61856 ($1.50).

Birch, J. W., & Johnstone, B. K. Designing schools and schooling for the handicapped. Springfield, IL: Charles C Thomas, 1975.

Council for Exceptional Children. Exceptional Children Conference Papers: Physically handicapped, 1973. Papers presented at the Annual International CEC Convention, Dallas, Texas, April 22-27, 1973.

Corley, J. Breaking down the barriers. Florida Vocational Journal, 1978, 3, 20-23.

Duncan, J. et al. Environmental modifications for the visually impaired: A handbook. Journal of Visual Impairment and Blindness, 1977, 71, 441-457.

Foster, J. C. et al. Guidance, counseling and support: Services for high school students with physical disabilities: Visual, hearing, orthopedic, neuromuscular, epilepsy, chronic health conditions. Technical Education Research Center, Cambridge, MA, 1977.

Harrison, S. B., & Johnson, M. Establishing services for the severely handicapped in public schools. Southwest Regional Resource Center, Salt Lake City, Utah, 1976. (Research Report)

Jones, M. A. Accessibility standards, illustrated. Illinois State Capital Development Board, Springfield, IL, 1978. Available from: Illinois Capital Development Board, 3rd floor, William G. Stratton Building, 401 S. Spring Street, Springfield, IL 62706 (Free).

Leonard, E. The handicapped building. Rehabilitation Literature, 1978, 39, 265-269.

Newby, J. L. Usability and hearing impairment. Teaching Exceptional Children, 1979, 11, 144-145.

Orelove, F., & Hanley, C. Modifying school buildings for the severely handicapped: A school accessibility survey. AAESPH Review, 1979, 4, 219-236.

Redden, M. et al. Science for handicapped students in higher education: Barriers, solutions and recommendations. American Association for the Advancement of Science, Washington, D.C., 1978. (Monograph) Available from: The Office of Opportunities in Science, American Association for the Advancement of Science, 1776 Massachusetts Ave., N.W. Washington, D.C. 20036 ($3.00).

Tennessee University School Planning Lab. Planning facilities for physically handicapped children. Fifth Annual Conference. Knoxville: Tennessee University Press, 1975. (Conference Paper)

What We Know about Mainstreaming from Experience

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In 1975 when The Education for All Handicapped Children Act (Public Law 94-142) was signed, most students who had been identified as handicapped and in need of special services were being taught in segregated special education facilities. The Congressional mandate that schools provide all handicapped children and youth with services in the least restrictive environment required a major restructuring of educational systems so that large numbers of handicapped children and youth could be integrated or reintegrated into the mainstream of public education. This process, which is known as mainstreaming, reduces the separation of handicapped and nonhandicapped students in educational settings and increases their opportunities for physical proximity, shared experiences, and social or cognitive interaction.

There are discussed in this chapter four forms of mainstreaming: physical, recreational, social, and instructional. Each is appropriate at different times for different handicapped children and youth as a method of bringing all handicapped students closer to the ultimate goal of total integration.

Physical mainstreaming occurs when a special class is moved from a church basement or segregated day school into an age-appropriate, public, regular school building. Although the educational programs for the handicapped children in this class still may be self-contained, the physical presence of the children in the regular school constitutes a minimal level of mainstreaming.

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Recreational mainstreaming occurs when handicapped and nonhandicapped children share the same physical facilities and eat lunch in the same lunch room at the same time, play (however separately) in the same playground at noon or recess, cheer the same basketball team, and enjoy the same school assemblies.

Social mainstreaming takes place when handicapped students are integrated into the social system of the school and they develop friendships with their nonhandicapped peers. This form of mainstreaming is harder to accomplish than physical or recreational mainstreaming; the latter two expose handicapped and nonhandicapped students to proximity but not necessarily interaction in the same physical environment. Social mainstreaming occurs when handicapped students are able to interact socially with nonhandicapped peers and regular education teachers. Although these interactions may be difficult to establish, they are not impossible. For instances of successful social mainstreaming see Reynolds and Birch (1977).

Instructional mainstreaming brings handicapped students into the instructional environment of the regular classroom with their nonhandicapped peers. Students sit in the same classroom and receive instruction from the same teachers, which is delivered in a manner to permit both handicapped and nonhandicapped students to benefit from that instruction.

Of the four types of integration, instructional mainstreaming is the most difficult to conduct successfully. It requires fundamental changes in the orientation of schools. It means heterogeneous and not homogeneous classroom groupings. It means inclusion rather than exclusion. It means that regular teachers essentially will have no choice in the make up of their classes. There are numerous examples of instructional mainstreaming in which children with various handicapping conditions are integrated in various levels of schooling (Birch, 1978). The problems of successfully carrying out instructional mainstreaming are the focus of this chapter.

The two authors acquired experience with instructional mainstreaming when they began working closely with the Pittsburgh Public Schools in 1975 to develop a comprehensive secondary school program for students with learning disabilities. The program provides a minimum of pull-out services to learning disabled students (one period per day) and retains these students in regular high school content area subjects for the remainder of their school time. (For a complete description of this program, see Zigmond, 1978.) The authors have trained special education teachers to serve as consultants and resource personnel to regular high school teachers and, thereby, to facilitate the instructional integration and reintegration of learning disabled students into high school subject area classes.

Experiences with this program at other levels have helped the authors to identify the reasons that attempts at instructional integration often are ineffective; confirmation has been provided by personnel who work in both elementary and secondary schools. In this chapter, some of the constraints on instructional mainstreaming are discussed and changes in the educational system to facilitate instructional integration are proposed. If instructional mainstreaming is to work then there must be change. Granted that change is a slow evolutionary process and does not occur in institutions like schools by simple fiat, the prospects for change can be enhanced by careful analysis of the status quo and the constraints.

Factors in Instructional Integration

The four factors that seem to affect the success of instructional integration are (a) parental support, (b) preparation of students, (c) accommodative power of regular education, and (d) organization of teacher education and service delivery systems. If instructional mainstreaming is to be implemented on a large scale, as it must be, then consideration must be given to these four factors and to the way in which they influence (and, in turn, are influenced by) the day-to-day realities of the schools. Each factor is examined here, current constraints to mainstreaming are discussed, and then some of the changes which must take place are identified if the needs of all handicapped and nonhandicapped students are to be met adequately, the needs of teachers in both regular and special education are to be considered and appreciated, and the intent of Public Law 94-142 is to be fulfilled.

Parental Support

Parents of nonhandicapped students. Many parents of both nonhandicapped and handicapped students are not enthusiastic about instructional mainstreaming. Parents of nonhandicapped students are concerned that their children's education will be compromised. They fear that their children will be given less attention if teachers are busy attending to the needs of the handicapped children. They are concerned that the presence of handicapped students in classrooms will lower the general level and quality of the educational environment. Sometimes they worry that handicapped students may frighten their children. They even may fear that somehow disabilities are contagious.

These parental concerns are understandable. The school experiences of most of today's parents did not include interactions with handicapped persons. Their current life experiences probably do not, either. This lack of exposure to the personalities and capabilities of handicapped persons contributes to a general skepticism about the values of mainstreaming and makes parents fearful and resentful.

We need large-scale programs to educate the parents of nonhandicapped students. Popular literature and commercial and educational radio and television offer the means for a public relations campaign on mainstreaming. Parents must learn why heterogeneous groupings of students in schools are preferred; why nonhandicapped children have much to learn from exposure to handicapped peers; and why mainstreaming is the appropriate method to serve all students. School systems must find vehicles for communicating to parents the nature of handicapping conditions and for allaying their fears (which are transmitted to children) of interactions with handicapped persons. A series of parent-education workshops can be used to explain what may be expected when a handicapped child is introduced into a regular classroom. Parents also need to explore ways to include handicapped students in their own children's out-of-school social experiences (e.g., how to include a handicapped child in a birthday party or scout troup). The support of parents of nonhandicapped students is critical. Without it school personnel are reluctant to press for more than minimal compliance with the provisions of Public Law 94-142 and, thus, mainstreaming is not successfully accomplished.

Parents of Handicapped Children. Some parents of handicapped students express considerable ambivalence about instructional mainstreaming. On the one hand, some welcome the opportunity for their children to return to the mainstream, and are eager for a mix of both special and regular education services. On the other hand some regard the mainstreaming mandate with considerable skepticism and even fear. Many regarded separate special education programs as sheltered, nonthreatening, nonstigmatizing educational experiences for their handicapped youngsters. They viewed special education teachers as sensitive caring professionals with the time, resources, training, and commitment to attend to the special needs of their children. Many worked hard to have their children placed in these special segregated educational programs. These same parents now fear that mainstreaming means that their children will be stigmatized, that they will experience rejection by and ridicule from regular teachers and nonhandicapped peers. They worry that handicapped students will not get so much teacher attention and teacher time as they received in the special classrooms. They are concerned that regular education teachers will not be so caring and committed to handicapped children as special education teachers were. They worry that their children will be unsuccessful in the mainstream. Remembering the elaborate identification and diagnostic procedures that uncovered the special needs of their handicapped children, they do not understand how individualized program planning conferences can result in recommendations for their handicapped children to participate in the very settings in which they had difficulty in the first place. They are disappointed because the mainstreaming placement seems as if nothing "special" is being given to children who have been recognized as having special needs.

These parents of handicapped children need to be re-educated about the appropriateness of least restrictive environments. They need to be shown how any necessary special services can be delivered in the context of a mainstreaming program. Their advocacy activities need to be redirected away from attempts to insure special programming for handicapped children and toward efforts to improve the general quality of education for all children. Because their fears are real and founded in experience, they need to be convinced that mainstreaming can improve and increase the educational opportunities which are available to their handicapped children.

School administrators, school board members, superintendents, directors of special education, and principals are responsive to parental pressures. School programs reflect the attitudes and wishes of the community. Parents of both handicapped and nonhandicapped children must join in support of advocacy groups to make mainstreaming a reality. Until a majority of these parents overcome their fears of the mainstreaming mandate of Public Law 94-142, the support and pressure needed for change to take place in the schools will not be forthcoming.

Preparation of Students

A significant factor in the failure of many mainstreaming attempts is the inadequate preparation of both handicapped and nonhandicapped students for the integration process. Regular education students are often very uncomfortable in the presence of handicapped students. A short lecture or brief simulation does little to relieve feelings which derive from fear of the unknown. In turn, some handicapped students have not had the experiences that would equip them to meet the demands of a mainstream environment. Even those who have been partially mainstreamed may not be prepared academically, socially, or psychologically for instructional integration. The curricula of both regular and special classes should be revamped to give adequate attention to the knowledge and skills needed by both sets of students to facilitate mainstreaming.

Needs of nonhandicapped students. Regular education students need information on handicapping conditions in order to develop some insight to and understanding of their handicapped peers. Even more important, they need help to develop positive attitudes toward individual differences of all kinds. They must learn to look beyond physical attractiveness, academic success, or athletic ability for other indicators of a person's value and contribution. Their help is essential to make the mainstream environment one that fosters acceptance and support rather than competition and rejection.

Needs of handicapped students: Academic. Handicapped students also need to learn to accept differences. They need to master an array of academic, social, and psychological skills that will enable them to cope with the integrated environment. To teach them necessary academic skills to handle the content and requirements of the mainstream classroom, there must be personnel in each school whose primary responsibility is to provide direct instruction to handicapped students in basic reading, listening, speaking, writing, and calculating skills. Such personnel are especially important for students who are beyond the primary grade level and may not get explicit instruction in basic academic skills in the context of a mainstream curriculum. The goal of direct academic instruction is literacy, that is, the foundation in basic skills that leads to graduation from high school, future employment, and life adjustment.

Nonacademic: "School Survival Skills." Handicapped students need specific training in how to cope with the instructional environment as it is structured in the mainstream. They need to learn how to function in larger, less individualized settings, which mainstream classrooms tend to be. In effect, they need to develop "school survival skills," for example, how to listen, follow directions, take notes, do homework, organize time, use textbooks, work independently, work with others, and wait for teacher direction. In sheltered special education school experiences, handicapped students may not have had specific training or practice in coming to class on time, having a pencil at hand, staying out of fights, or using body language that indicates a positive attitude toward learning. These behaviors are as essential for survival in the mainstream instructional setting as knowing how to read. To a large degree they influence teachers' attitudes toward students and thereby increase or decrease a student's chance of success in the mainstream. Many nonhandicapped students perform these behaviors intuitively; handicapped students, however, may need very explicit instruction in these survival skills. In preparing students for mainstreaming, the special educator must identify the behaviors that are appropriate for the regular classroom, playground, locker room, and even bathroom. Then, instruction in these survival skills must become part of the reintegration process.

Such instruction should be systematic and explicit. Teaching must begin with helping students to develop awareness of their current behaviors. Students need instruction in how to identify which of their behaviors are inappropriate. They need to see that there are consequences to all behaviors and that they have some control over these consequences by selecting more acceptable behaviors. While they develop repertoires of alternative behaviors, they need to practice them, first in the more sheltered special education context and then in the mainstream environment.

School survival skills training should be incorporated into the curriculum of both special education and regular education. Many students are referred for special services primarily because they lack these school survival skills and are disruptive in mainstream classroom. A successful school survival skills curriculum for students in the mainstream can reduce the referral rate to special education. Furthermore, when handicapped students spend less time in special education environments and greater emphasis is given there to basic skill instruction, the mainstream curricula may have to absorb this component of handicapped students' instructional needs.

Psychological needs. Handicapped students need to be prepared psychologically to participate in the mainstream. For the student who has been in a rigorously programmed special education environment in which task difficulty and delivery of reinforcements have been carefully controlled to insure motivation and success, the mainstream may be a disturbing experience. Such students may need to be taught how to deal with failure, criticism, and ridicule.

Handicapped students are likely to be anxious and fearful about reintegration and they must be helped to deal with these feelings. They can be taught how to be their own advocates, how to recognize their own strengths and limitations, and how to explain to others just what their capabilities are. They also can learn what resources are available to them in the schools and where to go for help when it is needed.

The adequate preparation of students for mainstreaming may take a long time. It requires teachers to build a series of specific instructional sequences into both regular and special education curricula. But it is an essential ingredient for successful mainstreaming and it should be given far more attention than it currently receives.

Accommodative Power of Regular Education

No factor is more critical to instructional mainstreaming than the extent to which regular education is able to accommodate individual differences. Many traditional approaches to day-to-day operations in school seriously constrain current attempts at mainstreaming.

Homogeneous grouping. Grade retention and grade acceleration policies, as well as pull-out programs for retarded, handicapped, unruly, or poorly motivated pupils have been supported by most teachers. They assumed that such policies helped to make their classrooms more homogeneous in achievement and their teaching jobs a little more manageable. Yet, even under these conditions teachers report that their classes reflect very wide ranges of abilities. Furthermore, they contend that they are required to teach too many children, that they rarely have access to aides, that they have a narrow selection of materials, and that with so many demands already placed on their time they cannot be expected to do even more.

There is also a strong commitment among school personnel to finding the "one best way" to teach all children. In many classrooms, all students sit at desks, all desks are in rows, all students are presented with the same lessons and the same materials to use, and they do the same assignments usually within the same time period. At a given time, all students take the same test and, regardless of performance, they all proceed to the next unit of study. Even in open classrooms where all students may operate on a weekly contract and be required to work independent of teacher direction, individual differences in learning capacity and learning style are often ignored. When individualized instruction is attempted only pacing is manipulated; students are still expected to complete the same assignment in the same manner, although different students may be on different pages of the same book.

Reliance on specialists. Teachers have been encouraged to rely on specialists to solve the academic, social, or psychological problems that children have in schools. Given the availability of specialists, teachers have felt comfortable identifying students they thought required "special" instruction and sending these students to other classrooms. This practice is, of course, at variance with the ideals and goals of instructional mainstreaming.

Attitudes of regular education teachers. Many teachers are reluctant to set aside traditional approaches and begin to accommodate handicapped students in their classrooms. They regard the mainstream mandates with considerable apprehension. They fear that special education students may be disruptive; they are uncomfortable in the presence of a handicapped child; and they feel inadequate at not having the specialized skills to teach handicapped children. Clearly, the traditions, attitudes, and skills of regular teachers must be dealt with in any attempt to maximize the opportunities for *all* students to learn in the regular education environment.

Inservice: A vehicle for change. Inservice education is one vehicle for bringing about needed changes. Workshops can be designed to help teachers to confront their anxieties about the introduction of handicapped students into regular classrooms. Factual information about handicapping conditions dispels myths and fears and replaces old sterotypes with realistic expectations for handicapped students.

Inservice education can introduce regular educators to the specific skills they need to deal more effectively with a wider range of individual differences in the regular classroom. By emphasizing that there is no "one best way" to teach all children, it can introduce teachers to the notion that variable are preferred over uniform practices, and that by using various approaches teachers are likely to reach more of their students, whether handicapped or not. Inservice education workshops can be opportunities to convince teachers that when they begin to modify instructional procedures to accommodate the individual needs of handicapped students the education of all children will improve.

Changes in roles. The heavy reliance on educational "specialists" who remove handicapped children from regular classes must be discouraged. The emphasis on "child-find" activities sets up the expectation by teachers and parents that any special children who are found will be given special treatment in special environments. This expectation is contrary to the goal of instructional mainstreaming. Instead, we should foster the expectation that *all* children have special instructional needs and that teaching to accommodate a wide range of individual differences will benefit *all* students. "Special" students need not be labeled, segregated, and taught exclusively by specialists because remediation or accelerated instruction can be provided in the context of the regular classroom with the help of specialists. Regular classroom teachers must accept a new responsibility for the education of handicapped students. Special education teachers also must accept new responsibilities. In many universities across the country, special educators are being prepared to serve in indirect service roles,that is, as resource personnel, inservice trainers, and consulting teachers. Their new function in schools is to help regular classroom teachers to develop and carry out the instructional alternatives which are required to educate handicapped children in regular classrooms. More such training programs will be needed in the future.

All efforts must be directed toward making the mainstream of education a place where no child feels unwelcome and where a teacher can call upon a variety of support services to assist him or her in providing an appropriate education to each child in the regular classroom.

Organization of Teacher Education and Service Delivery Systems

Background. Public Law 94-142 has created a new set of conditions in the public schools which must be addressed by teacher education. With no changes in teacher training, certification, class size, or resource allocation, the regular classroom has been designated as the least restrictive environment for most handicapped students. Neither special nor regular educators can reconcile past beliefs and practices with the current mandate, and the result is confusion and hostility.

Typically, regular educators and special educators have viewed each other in terms of their differences, for example, differences in whom they teach, how many students they teach, what they teach, and, most significant, how they teach. This emphasis on differences is given credibility by the schools: They establish differences in the duties, class size, materials, resources, and sometimes even salary scales for regular and special educators. There are also differences in training, credentials, and professional affiliations. Historically, special educators have justified these differences by emphasizing the specificity of handicapped children's needs. Mainstream educators have accepted the arguments that they are ill-prepared to teach retarded, disturbed, learning disabled, or physically handicapped students; that each category of students needs a specially trained teacher; that these students are particularly difficult to teach; and that the teachers who instruct these students need small class size and more material resources. Regular educators met their responsibilities to these students by automatic referrals to special education.

The difficulties created by the traditional separation of preservice training for regular and special educators, and of service delivery systems for nonhandicapped and handicapped pupils, must be dealt with. They are very serious constraints to instructional mainstreaming.

Needs of regular educators. Attempts to implement the law have revealed in practice what was evident to many in advance: The preparation of regular education teachers simply was not adequate for the newly created conditions. School personnel in general have not had the kind of preparation that is necessary for dealing with the full range of differences among the populations of children in regular school settings. It was for this reason, at least in part, that special classes for handicapped children proliferated in the first place.

Prospective teachers of regular classes must learn about their new responsibilities and about the social and legal traditions from which these new responsibilities arise. These teachers essentially have no choice but to work with handicapped children, and training programs can and must play a major role in helping them to develop a positive attitude toward integration and mainstreaming. Teachers also must learn their role in "child-find" activities. They must understand the procedures for and consequences of identifying a handicapped child, and be aware of school and community resources available to help them to retain such a child in the least restrictive environment. Most current literature and college courses overemphasize the role of specialists in educating handicapped students; they do not provide regular education teachers with adequate orientation or sensitivity to their role in the education of children with handicaps.

Regular teachers need preparation in the proper and efficient use of consultants. They also need more preparation to work with parents. The new mandate has placed parents of handicapped children in an advocacy role. Public Law 94-142 requires the participation of a handicapped student's parents at each step of identification, evaluation, placement in an appropriate setting, and educational planning. How these new parent-teacher relationships are developed is critical to the success of the least restrictive environment.

Regular classroom teachers need to know how to make educational assessments and to specify goals and objectives in clear terms. Public Law 94-142 mandates the development of individualized educational program plans, continuous progress report systems, and diagnostic profiles of strengths and weaknesses for each exceptional student. Regular education teachers need preparation in how to comply with these mandates.

In fact, to make mainstreaming work, regular education teachers need to know just about everything special education teachers of mildly handicapped youngsters know. One may even conclude that the distinction in preservice training programs between special and regular educators is no longer a reasonable or practical approach to the preparation of teachers. Future training programs may eliminate the distinctions in certification requirements for special education teachers of the mildly handicapped and teachers of nonhandicapped children. Training programs can be designed to prepare all teachers to teach all children and to feel that all children are their responsibility.

New preservice training programs for regular and special education teachers. In the new training programs, teachers may learn to teach a specific subject to all kinds of students. The concept of the generalist who is prepared to teach a self-contained classroom in an elementary school may have to be abandoned. In its place will come the subject-matter specialist. Elementary reading teachers would be prepared to teach all kinds of students as would elementary mathematics teachers and social studies or science teachers. In secondary programs, teacher trainees would retain the subject-matter emphasis but they would be taught techniques for reaching a wider range of individual students. These new training programs would embrace the idea that teachers may choose the content they will learn how to teach but not the kind of child they will teach.

Such an approach would eliminate the need for certain special education certificates, particularly those for teachers of the mildly handicapped. There still would be sufficient reason to retain special certification for teachers of the sensory impaired or the severly and profoundly handicapped because mainstreaming for these students may best be limited to physical and recreational mainstreaming.

One result of training programs which are reorganized along these lines would be increased communication among teachers and a new commitment by all teachers to all students. Graduates of these new programs would have no doubts about who is responsible for the special children when they are in the mainstream classroom or when they are being given special help. The graduates would feel that the children are the responsibility of all teachers all the time, regardless of who happens to be delivering services at a given moment.

Change in service delivery. When teachers are better prepared to make instructional mainstreaming a reality, important changes will have to take place in the way school systems deliver services to handicapped children. Instructional mainstreaming does not mean the end of special education services in the schools. There will be a continuing need for support services for handicapped students but they will be delivered in less restrictive settings, and new services to support mainstream teachers will be introduced.

The direct services may be provided in the regular classroom or a resource room to which a student is assigned for one period a day (the traditional practice). The direct special instruction will focus on the academic, social, and psychological skills handicapped children need to manage in the mainstream environment.

A teacher consultant working with mainstream teachers and other school personnel would be introduced as an additional indirect service to handicapped students. The teacher consultant would serve as a liaison between mainstream and special education teachers, facilitating the preparation of both handicapped students and mainstream teachers for reintegration. The teacher consultant would share information, ideas and, where possible, even supplies, materials, and other resources which are formally earmarked for special education teacher use only. The teacher consultant would work closely with the mainstream teacher in team teaching, developing alternative teaching materials, and solving instructional problems as they arise. The teacher consultant would help mainstream teachers to modify the teaching environment to accommodate more successfully the varying needs of all students in mainstream classrooms.

We view the teacher consultant position as critical to the initiation and maintenance of instructional integration. It is an essential--not optional--component in the re-organization of the service delivery system that will make mainstreaming work.

In sum, for instructional mainstreaming to work, we must change the preparation of teachers. New preservice programs must ensure that teachers not only have the skills they need to teach effectively but, also, a feeling of responsibility for all children. Service delivery systems also must change. Direct services to handicapped students will continue to be important but, in addition, personnel who can support teachers in their efforts to accommodate problem children must be introduced into schools. Only then can we truly achieve the instructional integration of handicapped students.

Conclusions

It is clear to us that in most school districts the regular classroom currently is not the least restrictive educational environment for handicapped children. Neither the instructional practices nor the social climate permit the instructional integration of handicapped students. We understand that change comes slowly to schools, that teacher behaviors change in very small steps, and that for these changes to occur teachers must have guided instruction, consultation, and on-going support. We remember that the time frame for instructional mainstreaming is much greater than the time frame for physical or recreational mainstreaming; and that the first student to be mainstreamed in a particular teacher's class may not benefit as much as will future students. We have tried to be realistic in selecting goals and expectations for instructional mainstreaming but we are concerned that so much still needs to be done.

Research Needs

Despite the fact that successful mainstreaming depends in large part on the ability of the educational environment to accommodate all children in all curricular areas, there has been to date no rigorous attempt to identify the teaching practices that enhance instruction of handicapped learners in regular classrooms. At the Learning Reseach and Development Center, University of Pittsburgh, we are undertaking such a study. Over the next few years we will examine the specific features of mainstream classrooms, including the classroom processes, teacher practices, and student behaviors that contribute to successful mainstreaming. We may guess that successful mainstreaming will take place in a classroom in which the teacher provides alternative ways for students to receive information, practice skills, and demonstrate knowledge; in which alternative organization and management strategies are in operation; and in which grading procedures take into consideration individual learning styles and learning rates. Our research will attempt to move us past the guessing stage to identify effective practices for instructional mainstreaming. More reseach of this kind is sorely needed.

Research is also needed on the range of individual differences that realistically can be accommodated in one classroom without jeopardizing the educational experiences for handicapped and nonhandicapped students. We need to explore whether changes in teacher-pupil ratios are necessary to accommodate handicapped learners in regular classrooms.

We strongly believe that the regular classroom is the place in which handicapped students should receive the major portion of their education. However, unless we find out what changes to make and how to make them, attempts at mainstreaming are bound to fail and compliance with Public Law 94-142 will not benefit handicapped children.

Mainstreaming is here to stay. It is not only the law of the land but it is a morally and socially appropriate course of action. To make it work may take considerable effort, but we had better be up to the task. Millions of children and their parents are counting on us.

References

Birch, J. W. Mainstreaming that works in elementary and secondary schools. *Journal of Teacher Education*, 1978, *29*(6), 18-21.

Reynolds, M. C., & Birch, J. W. *Teaching exceptional children in all America's schools*. Reston, VA: Council for Exceptional Children, 1977.

Zigmond, N. A prototype of comprehensive service for secondary students with learning disabilities: A preliminary report. *Learning Disability Quarterly*, 1978, *1*, 39-49.

Deinstitutionalization:
Implications for Special Education

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Deinstitutionalization is a public policy on residential living and the provision of services for handicapped people in community-centered settings rather than in large institutions. It is conceptually and practically related to the policy of mainstreaming in education, sharing a common philosophical origin and the common purpose of providing handicapped people with opportunities for maximum development and social integration. This chapter, therefore, discusses how deinstitutionalization affects mainstreaming and suggests strategies for planning, organizing, and providing essential educational opportunities for handicapped people affected by the policy of deinstitutionalization.

Deinstitutionalization

According to Bachrach (1980), deinstitutionalization is (a) a process, (b) a philosophy, and (c) a fact. The process of deinstitutionalization entails fewer admissions to large congregate living institutions, the release of residents from institutions to less restrictive living environments, and the provision of services that maximize opportunities for people to live and learn in normal social settings. The understanding of the import of this process is enhanced by examining its philosophical and factual aspects.

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Philosophical Aspects

Three philosophical concepts are reflected in the process of deinstitutionalization: normalization, least restrictive environment, and a developmental model of programing. As defined by Nirje (1976) normalization means making available to handicapped people the patterns and conditions of everyday life that are available to people in the mainstream of society. Related to normalization is the idea that in considering possible services for any given individual, the one selected should be the least restrictive alternative. Gilhool and Stutman (in press) noted the importance of the least restrictive doctrine in educational and human services in their review of the history of and legal basis for Public Law 94-142, The Education for All Handicapped Children Act of 1975, and Section 504 of the Rehabilitation Act of 1973. Based upon a consistent pattern of case law from federal courts and testimony before congressional committees, they noted,

> The legislative history...shows an acute awareness by the Congress of the long history of separation and isolation...imposed upon disabled people. The separation out of disabled children into remote self-contained institutions and school systems was the factual pattern central to the consciousness of the Congress and it defined the evil the Congress meant to change. (p. 19)

A developmental model of programing is another basic concept implied in deinstitutionalization. The developmental model of residential services assumes that all handicapped people, regardless of the degree of impairment, have the potential for growth, learning, and development (National Association for Retarded Citizens, 1976; Roos, 1970). Developmental programing further assumes that people change during their lifetimes, that individual development generally progresses in a sequential, orderly, and predictable manner, and that development can be modified through education and training.

Factual Aspects

The effects of deinstitutionalization as a public policy, mostly in mental health services and services for retarded people, can be observed in various statistics on residential services in the United States. Figure 1 displays the total populations of mentally retarded

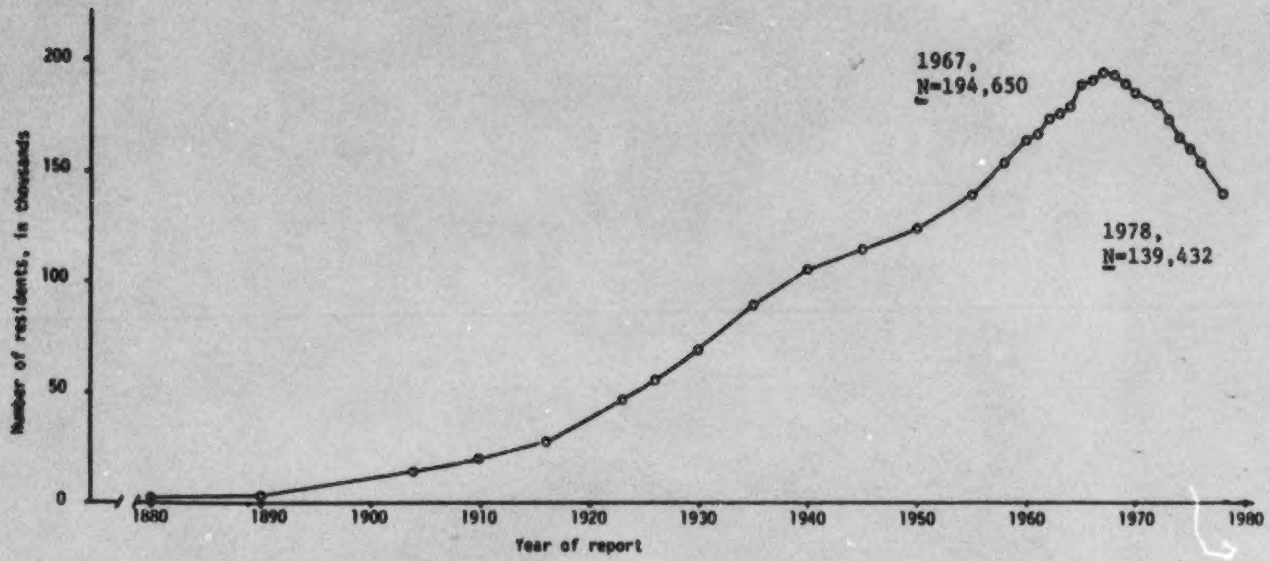

Fig. 1. Total populations of mentally retarded people in public institutions for the period 1880-1978. Source: K.C. Lakin, Demographic studies of residential facilities for the mentally retarded: An historical review of methodologies and findings. Project Report No. 3, Developmental Disabilities Project on Residential Services and Community Adjustment, University of Minnesota, 1979.

people in public institutions since the year 1880. From the peak year in 1967 to 1978, a reduction of approximately 30 per cent occurred (Lakin, 1979; Scheerenberger, 1978). The populations in state and county mental hospitals have changed even more dramatically, with a reduction of approximately 67% in the number of people in residence (Bassuk & Gerson, 1978). Reduction in the size of populations in institutions results largely from increased releases because death and admission rates have remained relatively stable (Butterfield, 1976; Scheerenberger, 1978).

Of special importance is the fact that nearly 90 per cent of the persons currently residing in institutions are quite severely retarded and display a large number of other physical, sensory, and emotional disabilities (Hill & Bruininks, 1981; Scheerenberger, 1976). Public education programs must be provided for those persons who are of school age under the provisions of Public Law 94-142 and related legislation.

Most people released from public institutions for the mentally retarded have been mildly and moderately retarded. About 25 per cent of them were returned to parents and close relatives; the remainder were placed in various other living environments (Scheerenberger, 1976). Increasingly, people who are released from public institutions are being placed in a variety of smaller, community living arrangements.

Deinstitutionalization also can be observed, therefore, in the rapid growth of private community residential facilities (see Fig. 2). A recently completed survey by the Developmental Disabilities Project on Residential Services and Community Adjustment at the University of Minnesota (Bruininks, Hauber, & Kudla, 1979) summarized information on community residential facilities and their residents throughout the United States. The survey included contact with 11,351 potential facilities, of which a total of 5,038 met the definition established for a community residential facility. Information was returned by approximately 88% of these facilities. Figure 2 indicates that over one-half (2,410) the total number of community facilities had opened in the three years prior to the survey, with 88% serving fewer than 20 residents per facility. (N.B. Approximately 50% of the mentally retarded people at the time of the survey lived in community facilities that each served over 30 residents.)

Although they served fewer people than institutions, it is nonetheless important to note that smaller community facilities served at least 62,397 people in June 1977.

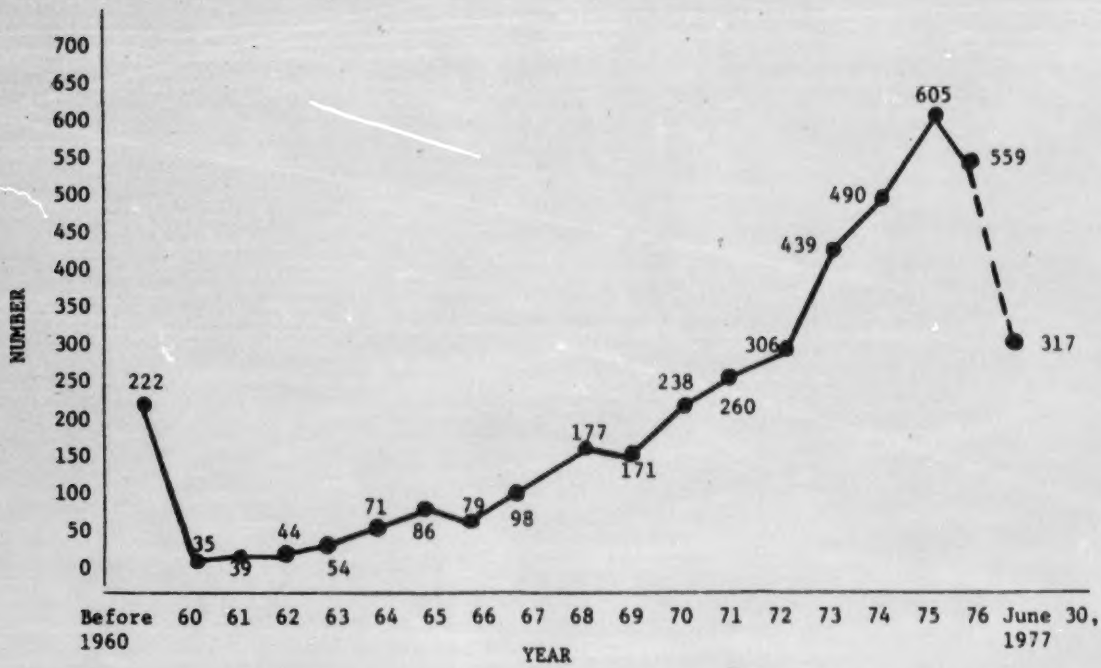

Fig. 2. Year of Opening for 4,200 CRFs (97% CRFs Reporting): United States, 1977. Source: R. H. Bruininks, F. A. Hauber, & M. J. Kudla, National survey of community residential facilities: A profile of facilities and residents in 1977. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1979.

Figure 3 summarizes the demographic characteristics of handicapped people in community residential facilities. Nearly 40% were less than 21 years of age and nearly two-thirds were moderately and severely retarded. The previous placement of residents in community facilities is particularly noteworthy in examining the factual aspects of deinstitutionalization. As expected, the largest single previous placement was from public institutions, although many placements were made from natural homes (see Fig. 4).

It is assumed that as various community services increase, more severely handicapped 117
youngsters either will enter community residences or stay at home rather than being placed in institutions. In addition to the estimated 3,700 school-age individuals entering community facilities from institutions each year, an estimated 2,900 school-age retarded people are returned to live with their parents. Furthermore, of specifically licensed foster homes for retarded people, 30 per cent are housing school-age people. These facts make it clear that the impact of deinstitutionalization on education is greater than would be expected simply by examining release rates from institutions (Bruininks, Hauber, & Kudla, 1979; Bruininks, Hill, & Thorsheim, 1980).

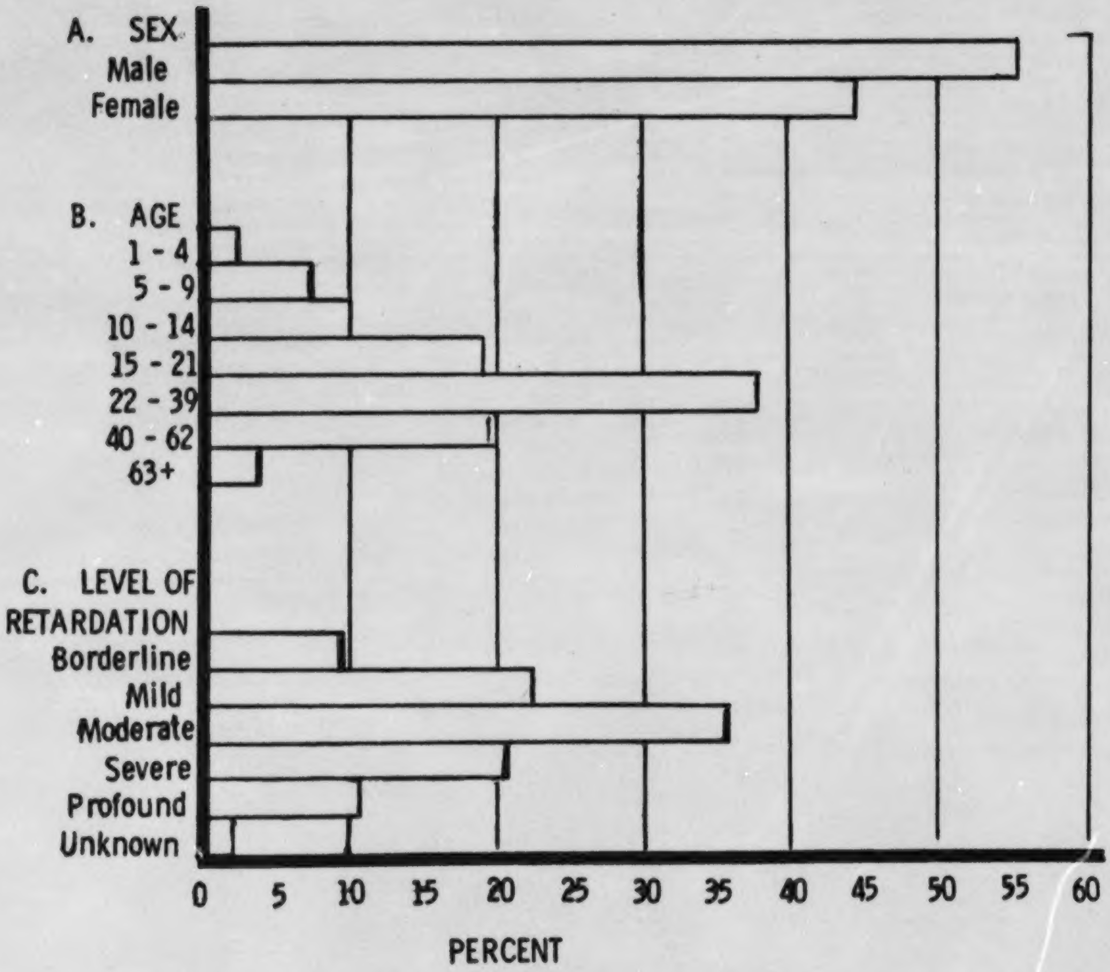

Fig. 3. Sex, Age, Level of Retardation of Mentally Retarded Persons in CRFS: United States States, 1977. (98% CRFs reported A, 96% reported B & C) Source: R. H. Bruininks, F. A. Hauber, & M.J. Kudla, National survey of community residential facilities: A profile of facilities and residents in 1977. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1979.

Persons of school age in community residential facilities of all types are clearly eligible to attend public schools. According to Public Law 94-142, state and local education agencies must insure that "...all handicapped children have available to them...a free appropriate education which emphasizes special education and related services designed to meet their unique needs."

Implications for Special Education

Viewing deinstitutionalization from process, philosophical, and factual perspectives

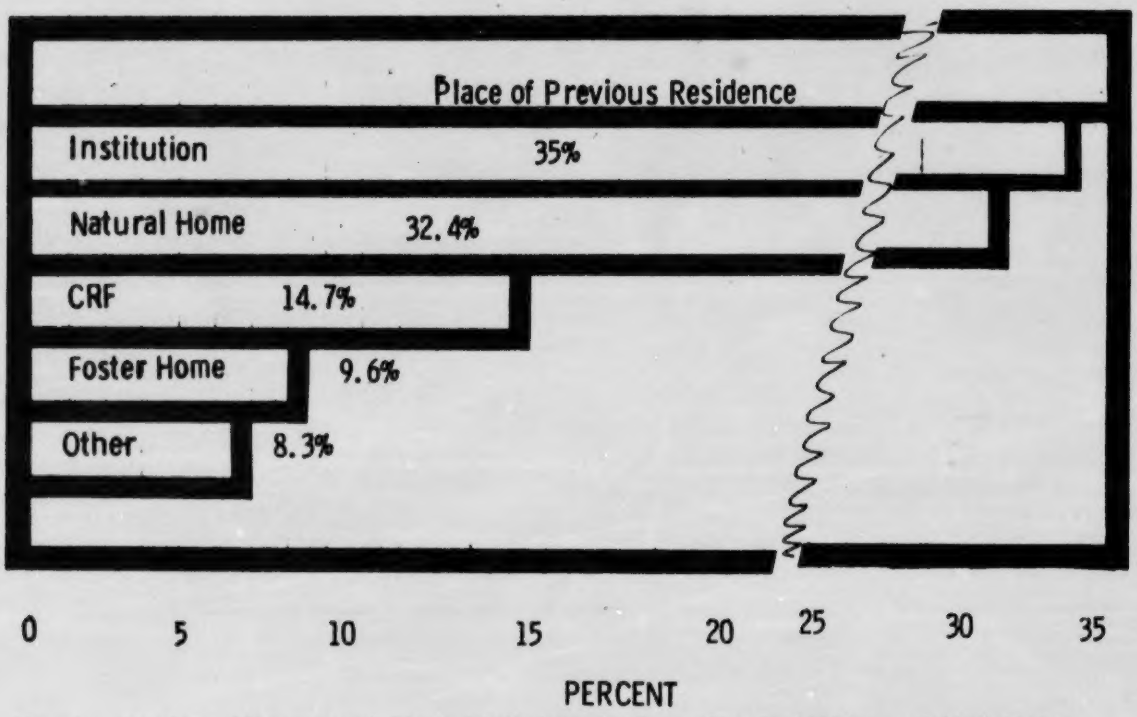

Fig. 4. Previous Placement of First Admissions in Community Facilities: United States, 1977. (95% CRFs Reporting) Source: R. H. Bruininks, F. A. Hauber, & M. J. Kudla, *National survey of community residential facilities: A profile of facilities and residents in 1977.* Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1979.

reveals a strong conceptual similarity to the policy of mainstreaming in public education. Both policies derive from a common philosophical and legal foundation which is directed toward providing maximum opportunities for handicapped people to learn and participate in normal aspects of community life.

Public Law 94-142 was the recent impetus for mainstreaming. Chief among the many requirements of this act is that handicapped children and youth between 3 and 21 years of age receive a free and appropriate education that affords, as much as possible, experiences with nonhandicapped students in the least restrictive setting. Other key provisions require (a) individualized educational plans (IEPs), (b) expanded services for unserved handicapped populations, (c) procedural safeguards for handicapped children and their parents, (d) active participation of parents and parent surrogates in planning and monitoring educational services provided their children, and (e) state education agencies to assume jurisdiction over all educational programs for handicapped persons offered within a given state, including responsibility for the coordination of services to handicapped children. 119

The interface of the policy of deinstitutionalization and the provisions of Public Law 94-142 creates four important challenges to special education personnel. Briefly, the first challenge derives from the fact that schools must identify and meet the educational needs of unserved and underserved handicapped children. Schools now must work collaboratively with other service delivery systems because these children are often in residential programs which, typically, fall under the aegis of welfare and social service agencies; yet poor coordination of the activities of agencies with common interests and compatible responsibilities is viewed as an endemic problem in human services and education (Bachrach, 1978; Bradley, 1978; Bruininks, Williams, & Morreau, 1978; V.L. Bruininks, 1979; Gettings, 1977; General Accounting Office, 1977). A second and related challenge is to alter attitudes of personnel toward the concept of schooling and the involvement of appropriate persons in planning and monitoring educational experiences for severely handicapped students.

The third challenge for educators resulting from deinstitutionalization is to provide comprehensive and effective service programs in community schools. The philosophical foundation of deinstitutionalization is a commitment to provide life experiences in community settings that are as close as possible to normal patterns of living. This commitment implies that handicapped people will enjoy opportunitites to learn and develop personal, social, vocational, and community living skills to the maximum of their abilities. Considering that many people in residential settings outside the natural family have lived significant portions of their lives in rather isolated surroundings, and many others are severely and multiply handicapped (Hill & Bruininks, 1981), providing the appropriate range of services does indeed assume challenging dimensions.

A final challenge is the development of classroom interventions to enhance the learning and adjustment of handicapped children and their social integration in schools and other settings. This is perhaps the most important aspect of serving children who are affected by the policy of deinstitutionalization.

Each challenge to public education resulting from deinstitutionalization is discussed in the following sections.

Systematic Approaches to Cooperative Planning

One result of deinstitutionalization and the emphasis on community care and treatment of disabled people has been a phenomenal increase in agencies and programs to serve them.

Table 1

Issues in Deinstitutionalization and Residential Services

A. Planning for Deinstitutionalization

1. Use of institutional facilities that are no longer in operation
2. Training and job placement of displaced institutional staff
3. Assessing the need for organized development of new residential programs
4. Coordinating needed community services with residential programs
5. Prevention and amelioration of developmental disabilities through early diagnosis, referral and treatment
6. Developing public awareness and acceptance of developmental disabilities

B. Financial Considerations

1. Providing incentives and support for in-home family care of the developmentally disabled person
2. Financial resources for starting residential programs
3. Financial resources for operating residential programs

C. Individualized Program Planning and Evaluation

1. Evaluating the institutional resident's readiness for community placement
2. Preparing (training and counseling) institutional residents for community placement
3. Planning the transfer of individuals from institutions to community residences
4. Strategies for exchanging information upon transfer of persons from institutions to community placement
5. Developing individual program plans, including follow-up assessment after placement

D. Regulatory Issues

1. Licensing and regulation of residential programs
2. Regulating staffing levels and staff qualifications
3. Regulating geographic density of residential programs and issues of zoning

E. Legal Considerations

1. Protection of individual rights
2. Guardianship laws and services

F. Community Services

1. Leisure-time and recreation programs
2. Public transportation services
3. Health care services
4. Educational services
5. Developmental learning/daytime programming
6. Vocational education/work training
7. Employment opportunities
8. Respite care

Source: R. H. Bruininks, S. M. Williams, & L. E. Morreau. Issues and problems in deinstitutionalization in Region V (Information and Technical Assistance Project on Deinstitutionalization, Project Report No. 2). Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1978.

Many of these services were instituted after the passage of federal legislation. The number of service programs operated by the U.S. Departments of Education and Health and Human Services, for example, has increased sixfold in the last 15 years. A General Accounting Office study recently found that over 11 federal departments and agencies administered at least 135 educational and other human service programs in the interest of mentally disabled persons (General Accounting Office, 1976). Currently, the fragmentation of responsibility for services often requires a handicapped individual and his or her family to negotiate the effective integration of services.

There is little doubt that the policies of deinstitutionalization and mainstreaming increase the number of agencies and individuals who are responsible for providing handicapped people with educational and other experiences. Table 1 illustrates the range of complex issues that are involved in the process and practice of deinstitutionalization. One of the most persistent and vexing problems in this taxonomy of issues is the difficulty of coordinating needed community services with residential programs (Bruininks, Williams, & Morreau, 1978; Gettings, 1977; Jones, 1975). A study by Freeman (1978) illustrates the problem of coordinating the services of schools and other agencies. In his report, Freeman described the results of a pilot study to assess the value of foster family care as an alternative to public institutions. The children from institutions who were placed in foster care settings registered gains in intelligence test scores and improvements in emotional behavior; nevertheless, Freeman's agency encountered frustrations in working with public school systems:

> The agency had great difficulty working with the public schools. Some school districts resent foster homes for retarded children. Any agency that wants to keep retarded children in the community has to find ways to help school districts increase their commitment to these special resources. (p. 120)

The provisions of Public Law 94-142 require the use of teams in the evaluation, placement, and program planning for handicapped students in public schools, and the use of interdisciplinary teams is suggested by Elder (1979) as an approach to facilitating the coordination of services delivery to handicapped individuals. At the local level, schools should expand the required teams to include representatives of all agencies who may have an interest in a particular handicapped student. The schools, thus, could plan an important role in facilitating the needed coordination of services for handicapped people.

Especially in rural areas, however, a major problem is the lack of needed services and service agencies rather than the coordination of existing services. Jones (1975) stressed the importance of developing community resources, referred to as "communitization," to provide services for persons who are released from public residential institutions. Community involvement is vitally important to organize services for all people in community facilities and for all handicapped students served through the public schools.

Apter (1977) introduced the idea of community special education, which is a coordinated, community-wide planning process that organizes available resources to meet the needs of handicapped persons. Ideally, it is a structured process that brings together people and agencies which are involved in the lives of handicapped people to discuss problems and to work toward long-range solutions. A model for actually organizing and implementing the concept of community special education was developed by V. L. Bruininks (1979). Based on principles of organizational change and the application of systems methodology, this model involves community decision makers and other persons in collaborative interactions and uses the development of inservice training as the mechanism for change because carefully planned inservice education programs are urgently needed to make sure that handicapped students are served appropriately in least restrictive programs and are taught by qualified and competent personnel. The model also incorporates methods of overcoming common roadblocks to interagency agreements (Elder, 1979). Development of a community special education planning process can assist educators and other human services personnel in overcoming barriers to full opportunity for handicapped people, particularly the problems of supplying needed services in rural areas.

Altering Attitudes and Practices

The current barriers that prevent full services to handicapped students can be characterized in many ways. In Table 2, Phillips, Carmel, and Runzullo (1977) show their comprehensive analysis of common barriers to realizing the ideal of full services. Overcoming these barriers, fulfilling the intent of Public Law 94-142, and recognizing the influence of the public policy of deinstitutionalization requires important and pervasive adjustments in the attitudes and responsibilities of public school personnel. These adjustments include the following:

-Involving parents, parent surrogates, and residential care staff in planning indivi-

Table 2

Barriers to Achieving Full Services for Handicapped People

Nature of Barrier	Source of Barrier
Barriers within society	...Apathy and indifference due to a lack of knowledge and awareness about the handicapped
	...Reluctance to embrace those who are different and to part with stereotypes
	...Tendency to focus on inabilities rather than abilities
	...Inaccessible buildings, travelways, and public transportation
	...Inadequate public leadership promoting the causes of the handicapped
Barriers within the helping system	...Competing demands for attention, time, dollars, and priority status
	...Lack of inter-agency cooperation, coordination, and planning
	...Lack of a planned continuum of services
	...Lack of knowledge of services needed on the part of program administrators, developers, and evaluators
	...Insufficient use of handicapped persons and parents of the handicapped in the planning of programs and services
	...Inadequate preservice and inservice personnel development
Barriers within handicapped persons, their families, and advocates	...Tendency to foster or accept dependence rather than train independence
	...Lack of knowledge about opportunities, services and rights
	...Oversensitivity to criticism and teasing
	...Inadequate career counseling and guidance
	...Lack of self-understanding and appreciation
	...Tendency to give in to pressure to conform to inferior roles and expectations

Source: L. Phillips, L. Carmel, & R. Renzullo. Barriers and bridges. Sacremento, CA: California Advisory Council on Vocational Education, 1977.

dualized educational programs.

-Accepting the policy that education of handicapped chiddren and youth is a 24-hour responsibility--one that is shared by the schools, parents or parent surrogates, and other social service agencies.

Potential benefits flow from involving parents and parent surrogates in educational planning meetings for handicapped children. Some of these benefits are suggested in a study reported by Singer, Bossard, and Watkins (1977) of the effects of parent participation in interdisciplinary planning sessions at a large residential institution. The investigators found, for example, a significant increase in staff attendance and recommendations for training activities when parents were in attendance over meetings which parents did not attend. It is important that parents, parent surrogates, and residential program personnel be considered by school personnel as legitimate and active partners in planning educational programs for their children or the persons they serve because continuity in programing is necessary between school and home. Such participation undoubtedly enriches the perspectives of all persons who work toward furthering the development and educational needs of handicapped children; the advantages may far outweigh any inconveniences that result from their involvement.

Some unique problems can occur, however, when parent surrogates are involved in the educational planning process. Many children and youth in community and state operated residential programs are under state guardianship. In such cases, local case workers, not the foster parent or facility operator, may act as official parent surrogates. To complicate matters, many of these case workers are responsible for very large numbers of persons and cannot effectively participate as team members to design IEPs. It is all the more important in these circumstances that school personnel seek the active involvement in educational planning meetings of personnel in community residential facilities and foster parents. The inclusion of residential facility personnel would help to meet the intent of Public Law 94-142 for the appropriate participation of parents in important educational decisions when the involvement of the biological parents cannot be achieved.

A central concept of Public Law 94-142 is that schools assume responsibility for the education of all school-age children, regardless of the nature and severity of a person's handicapping condition. To effectively meet this mandate, it is not sufficient merely to increase the involvement of residential and human services personnel in educational planning for handicapped children; rather, it is essential that public education personnel also assume increased responsibility for the total development of the severely handicapped children and youth. This responsibility becomes important in relation to the public policy of deinstitutionalization.

Past practices often encouraged the long-term placement of severely retarded children and youth in settings that were remote from the general community. Several years ago there were few small, community-based residential centers for such persons, probably fewer than 500 thoughout the United States. With the increasing emphasis on deinstitutionalization, however, the number of out-of-home residential placements in small, decentralized living arrangements has burgeoned for mentally retarded and other handicapped people. One of the inevitable consequences of this increase in community residential placements is diffusion in responsibility for the care and treatment of handicapped people with the attendant problem that many individuals fail to receive needed services (Bruininks, Thurlow, Thurman, & Fiorelli, 1980).

Special educators can play an important role in assuring free and appropriate education for handicapped people in all types of community residential facilities. An actual example illustrates the constuctive role of school personnel in expanding opportunities for such children and youth.

> Sally, a 9-year-old profoundly retarded child with a number of other severe handicapping conditions, is now living in her third foster home placement. In the previous foster home placement Sally spent 24 hours a day in a crib and was bottle fed, largely because it was felt that she was unable to develop skills through training. About two years ago a homebound teacher was sent by the schools to evaluate Sally. The teacher concluded she should be enrolled in an educational program for severely handicapped children and placed in a different home environment. With this advice, the county social worker then located a new home for Sally, one in which she has shown remarkable progress during a period of several months. Sally now is able to feed herself with a spoon, drinks from a self-held cup, stands for a few hours each day, walks with assistance, has fewer and milder seizures, speaks a few words, responds to simple

> verbal instructions, and shows selective emotional responses toward people Although Sally is still a profoundly handicapped child, remarkable progress attests both to the importance of the residential living environment and the school in the development of children. Moreover, Sally's experience poignantly describes the important role educators can play to assure that children in community care settings receive full educational opportunity. Without the intervention and personal advocacy of a single teacher, Sally's development could have been severely arrested, and she could have shown progressive deterioration due to lack of stimulation and activity.

Educators also can play an important role in changing attitudes toward and raising expectations for severely handicapped children among parents, foster parents, and residential program personnel. One of the frequent consequences of institutionalization is a lowering of expectations for the further development of handicapped people. The potential influence of expectations on behavior and development is well known and illustrated in the case of Sally.

Public education can be made more responsive to the needs of handicapped persons in residential programs in many new ways. In a recent survey of approximately 50 consumers and state agency personnel conducted by Bruininks et al. (1978) in six midwestern states, leisure -recreational guidance and public transportation were cited as the least available services to developmentally disabled people in community residential programs. Lack of work training and employment also were cited as unavailable or very limited in their states by nearly 50% of the respondents. The schools can clearly help with the solution of these problems 127 through both in and out-of-school programs. For example, leisure-recreational opportunities for severely handicapped people in foster homes and other residential placements could be conducted under the auspices of Community Education Programs, which are subsidized by various state and federal reimbursement programs. Work-training opportunities also could be provided or expanded under school auspices in collaboration with other agencies.

These ideas are offered with full recognition of the growing public and financial pressures on schools. Implementing them may indeed require an increase in workload and modest increases in public expenditures for education, but most needed changes are possible if the roles of educators are broadened and if the planning and services providing for the participation of significant people and agencies outside the schools are ensured. Without adequate attention to the total lifespace of people, the concept of serving handicapped persons in normalized and least restrictive settings becomes simply an empty slogan.

Provision of Approriate Educational Services

One key requirement of Public Law 94-142 is individualized educational planning. The concept of individually based program plans is also a condition of the licensing and funding of residential services in many states. Although educators and operators of residential services have complained about the amount of "paper work" generated by this requirement, the concept of individualized planning is important to effective programing for severely handicapped people.

Handicapped people must develop some marketable occupational skills, and they must learn appropriate social behavior for community acceptance and integration. Acceptable behavior and personal habits have been found to be significantly related to the level of community adjustment among retarded people released from institutions (Carver & McCraig, 1974; Heal, Sigelman, & Switzky, 1978). Persons with poor community adjustment generally exhibit certain maladaptive behaviors, poor social skills, and poor community living skills (Crawford, Aiello, & Thompson, 1978).

Persons recently released from public institutions and those currently in such facilities show more behavior problems and more severe handicapping conditions than those released in earlier years (Eyman & Call, 1977; Hill & Bruininks, 1981). In recognition of this difference and the documented importance of acceptable social behavior and independent living skills for community acceptance and adjustment, it is essential that these areas be emphasized in special education teaching programs.

A number of writers have discussed social skills curricula for handicapped people. For example, Wehman (1979) developed a curriculum of the social skills which are viewed as necessary for successful vocational adjustment; and Schalock and Harper (1978) developed and evaluated a curriculum in community-living skills for people released to community placements after long periods in institutions. In general, needed educational experiences for handicapped persons seem to be appropriately subsumed under the rubric of career education.

Brolin and Kokaska (1979) defined career education as the process of systematically coordinating all achool, family, and community components to facilitate each individual's potential for economic, social, and personal fulfillment. In recommending career education curriculum competencies for special education programs, the authors organized the essential competencies into three domains: daily living skills, personal social skills, and occupational guidance and preparation (pp. 108-109). The model further delineated competencies in each domain and showed correlated behaviors that can be used to organize teaching programs and evaluate the individual's mastery of specific community living skills.

The delivery of educational experiences to handicapped students in need of community-living skills training can be conceptualized in many ways. Bluhm (1979) proposed an educational and training system to prepare mildly retarded people for competitive employment. Figure 5 shows that this system has a pre-vocational or educational phase (generally beginning at the junior high school level and maintained in the initial senior high curriculum) and a vocational phase (beginning in the upper grades of high school and continuing at the post-secondary school level, if possible). Implied in this system, as in others, is the coordination of school, family, and various community agency services to meet the individual learning requirements of handicapped people.

The public schools are responsible for the provision of appropriate educational experiences for all handicapped children and youth, and as far as possible these experiences should be provided in regular educational settings. Deinstitutionalization requires that schools become increasingly responsive to the needs of more severely handicapped individuals who have known long-term isolation from the normal experiences of schools and community living. Curriculum modifications must be made; new curricula with a career education orientation must be further developed; and handicapped students must be more fully integrated into public schools. A number of promising interventions can be tried to foster the social integration of handicapped students in regular school programs.

Classroom Interventions

The policies of deinstitutionalization and mainstreaming have resulted in the placement of thousands of handicapped children in regular school programs, and further deinstitutionalization is likely to force upon schools the assimilation of children with even more severe intellectual, physical, social, and personal handicaps. Their meaningful social integration is unlikely to occur without the benefit of certain educational interventions. The classroom teacher has the powerful potential to influence the acceptability of each student by (a) the example he or she sets in modeling desired attitudes and behaviors, (b) the social

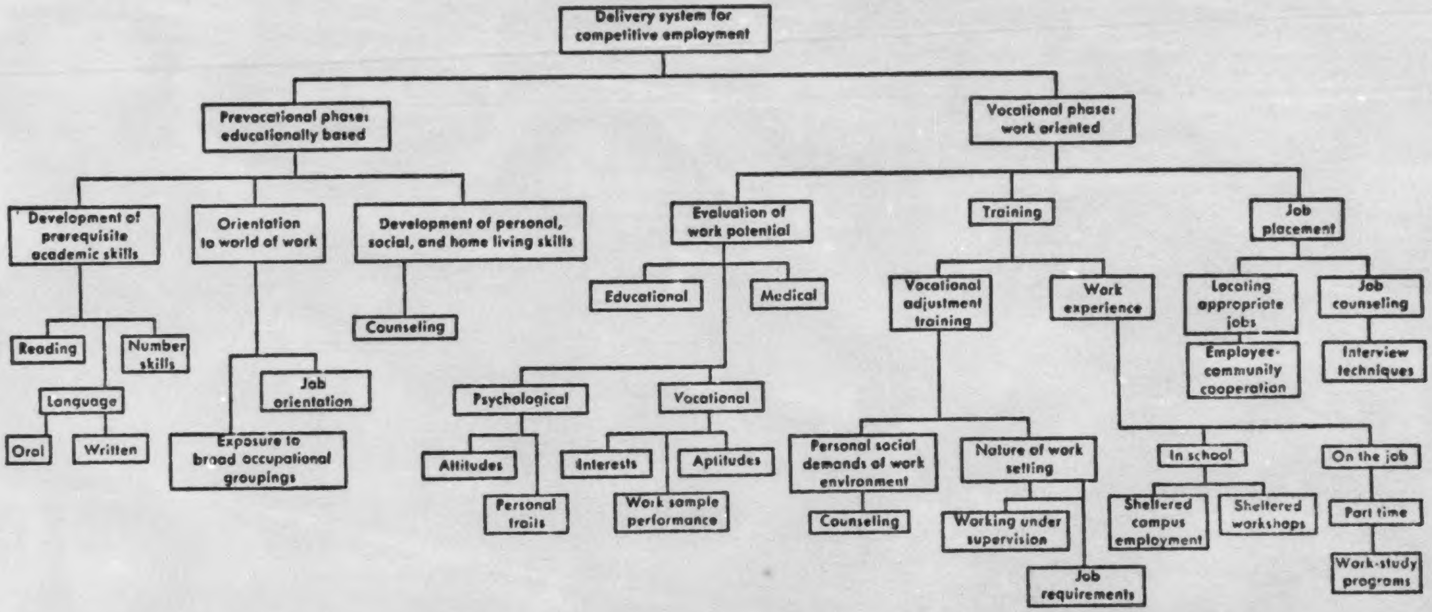
Delivery system for competitive employment
Prevocational phase: educationally based
Vocational phase: work oriented
Development of prerequisite academic skills
Orientation to world of work
Development of personal, social, and home living skills
Evaluation of work potential
Training
Job placement
Reading
Number skills
Language
Oral
Written
Job orientation
Exposure to broad occupational groupings
Counseling
Educational
Medical
Psychological
Vocational
Attitudes
Personal traits
Interests
Aptitudes
Work sample performance
Vocational adjustment training
Work experience
Personal social demands of work environment
Counseling
Nature of work setting
Working under supervision
Job requirements
Locating appropriate jobs
Employee-community cooperation
Job counseling
Interview techniques
In school
Sheltered campus employment
Sheltered workshops
On the job
Part time
Work-study programs

Fig. 5. A vocational delivery system for the mildly retarded individual. Source: H.P. Bluhm. A vocational delivery system for the mildly retarded. In S. J. Feldman, Readings in career and vocational education for the handicapped. Guildford, Conn.: Special Learning Corp., 1979.

atmosphere which is established in the classroom, and (c) the adaptation of classroom procedures and activities to meet more effectively the needs of the handicapped student.

In general, teachers prefer students who are liked by their peers, are able to show support for others, and adjust well to school work and discipline (Schmuck & Schmuck, 1979). Inasmuch as handicapped students frequently lack one or more of these qualities (V. L. Bruininks, 1978; Bruininks, Rynders, & Gross, 1974), it is possible that a handicapped student may have a difficult time being liked and accepted by the classroom teacher. Classmates notice the level of acceptance the classroom teacher exhibits toward a handicapped student and then they reflect that level of acceptance in their own interactions with the student (Foley, 1979). The teacher, therefore, should make a conscious effort to avoid rejecting the handicapped student and communicating negative attitudes to other students in the classroom. It is important also for the teacher to communicate realistic, obtainable academic and behavioral expectations to handicapped and other students in the classroom because there is a correlation between success in the classroom and a teacher's positive expectations for the handicapped student (Dworkin, 1979).

In planning classroom interventions, it is helpful to remember the varying degree of influence which peers have upon one another at different ages. At the elementary school level, when peer values have less direct influence upon each individual, interventions can be developed and used primarily to prevent or lessen negative stereotyping and rejection of the handicapped student in the future. Expectations for peers at this age are rudimentary, and children are less apt to have acquired general negative attitudes toward people with various handicapping conditions. By the time children are at the secondary school level, however, they are likely to have well-developed standards for social acceptance and more clearly defined stereotypic attitudes toward handicapped persons, and here the influence of the peer group is primary.

Stereotypes can be lessened and social acceptance increased when students develop a greater understanding of the differences and similarities between themselves and others (Lewis & Thurman, 1979). One way to heighten sensitivity among students is through encouraging them to learn about the experiences of other people who are handicapped or labeled "different" in some respect and the problems and difficulties they have had to overcome. The teacher may begin by having students study the experiences of various real or fictional characters as they are portrayed in books, filmstrips, and movies. Students also can learn from the real-life experiences of people with various handicaps in their community and school. Finally, students could learn through role-playing or simulated-experience activities what it is like to be disabled. Actively learning about a handicap, as in a simulation, tends to reduce substantially negative peer attitudes toward students with those or similar disabilities (McCallum, 1979; Orlansky, 1979). In addition to learning about a peer and his or her particular handicap, nonhandicapped students need to know how they can help to include the handicapped student into the academic, social, and recreational activities of their classroom (Hewett, 1977; McCaffery, 1976).

Teachers can help to raise peer expectations for handicapped students (Schmuck & Schmuck, 1979). First, a teacher should identify the specific strengths of a handicapped student and provide opportunities for those strengths to be further developed and used positively in classroom situations because the social status of handicapped children can be improved by developing and emphasizing their strengths and talents (Siperstein, Bopp, & Bak, 1978; Vance & Wallbrown, 1979). Second, the teacher should make sure that the handicapped student is associated with events and activities that peers enjoy, thereby through "stimulus generalization" perhaps increasing the value of the handicapped student in the eyes of his or her peers. Finally, the teacher should plan classroom activities to increase the frequency with which peers observe the handicapped student engaged in positive and valued activities and/or performing in positive and valued ways.

To influence social acceptance directly, a teacher must become familiar with the values and norms of the classroom group and with the particular friendship patterns among the students. Appropriate questionnaires can be developed and various sociometric techniques used to gather this information (Gronlund, 1959). By learning about the peer culture, the teacher may be able to identify the individuals or groups to whom other students look for advice, leadership, or approval. It may be important to enlist the help of these high-status peers in order to change negative peer norms toward more constuctive attitudes and values. For example, a mature, popular student could be chosen as a tutor for a less accepted student. The tutoring situation might help a handicapped student and peer tutor to get better acquainted and to develop greater acceptance of each other. It may further serve as a positive example for the rest of the class as they observe the handicapped student working with and being accepted by the high-status student.

Possibly the teacher may find that certain desired norms to increase peer acceptance in the classroom are in direct conflict with norms already highly valued by the peer group. The teacher then should either "relabel" the desired norms to make them more attractive to the peer group, or "relabel" certain norms to make them less attractive and desirable to peers (Vorrath & Brendtro, 1974). For example, if the teacher wants to establish the importance of caring and being concerned for one another but realizes that the peer group considers caring to be a trait of "sissies," the teacher could relabel caring as a quality of a strong, mature person.

As suggested previously, students' acceptance of one another can be enhanced by increasing their opportunities to interact with each other in appropriate ways. For example, a special area of the room could be organized for small-group activities, or the students' desks could be rearranged so that they face each other or are in small groups for certain activities. The teacher also could insure that the handicapped student is seated by a popular student or in an accepted group so that there will be opportunities for positive interactions to occur. Allowing students to work together cooperatively on class activities is an important and effective way to increase interaction and acceptance among students (Johnson & Johnson, 1975; see chapter by Johnson & Johnson in this volume). Positive interaction also can be increased through the use of open-ended discussions, such as "Magic Circles" and classroom meetings (Glasser, 1969).

In addition to creating a classroom environment conducive to the social integration of handicapped students, the classroom teacher can develop particular learning experiences for handicapped students, such as the following, to aid their social acceptance:

1. An important aspect of social acceptance is physical appearance (Shushan, 1974). Experiences can be developed to teach handicapped students (a) why a pleasing physical appearance is important, and (b) how to improve physical appearance through personal hygiene, grooming skills, appropriate dress, and posture (Neisworth, Jones & Smith, 1978; Sherrill, 1980).

2. Handicapped students can learn to compensate for abilities and skills which are difficult to acquire by capitalizing on existing strengths and interests. Students can be assisted in developing a special ability (e.g., art, music, and athletics), hobby, or an interest as a means of enhancing personal recognition and identity.

3. A handicapped student may lack the social skills needed for effective communication and interaction with peers. It is possible to teach children how to identify and interpret

various forms of nonverbal and verbal communication, such as facial expressions, gestures, eye contact, bodily movements, personal "space" between speaker and listener, vocal inflections, and the use of humor and sarcasm.

4. An important aspect of social integration is developing and maintaining friendships. Handicapped students should be instructed, if necessary, in the basic principles of what a friendship is, why people need friends, and how friendships are formed. In kindergarten and primary grades, friendships seem to be based on the giving and sharing of material objects, like toys. In the upper elementary grades, friendships appear to be based on helping others and asking for help. In the middle school or junior high grades, friendships seem to be influenced by the expression of feelings and, in the senior high school years, by knowing how to establish close relationships through "give and take" and "avoiding giving psychological pain to others" (Damon, 1977). Specific skills in these areas could be developed, as well as related skills in showing other people approval and finding and strengthening common areas of interest with others.

5. Because it is important to become part of a group, a handicapped student might profit from direct instructional experiences related to (a) identifying the purposes of a group activity, (b) understanding the roles and responsibilities of "the leader" and "followers" in various types of groups, (c) recognizing ways to be of assistance in reaching group goals, (d) identifying and adjusting to the group, and (e) conflict resolution.

6. Developing and maintaining relationships with same-sex and opposite-sex peers is important for social integration. It appears that same-sex relationships are still of primary importance in the elementary school grades whereas opposite-sex relationships develop sometime during or after middle school or junior high school grades. The handicapped student may benefit from being taught specific local norms for social behavior with both same-sex and opposite-sex peers.

7. An essential aspect of appropriate social behavior often includes skills in positively influencing the behavior of other persons. A handicapped student can be taught specific strategies for changing the negative behaviors and attitudes of other people (Dietrich & Mehrotra, 1978; O'Leary, 1977). For example, the student could be taught to identify the negative and incompatible positive behaviors of another individual and then instructed in how to ignore such negative behavior and consistently reinforce the desired positive behavior.

It is important to teach social skills directly to handicapped students so they can achieve social acceptance at school. It is also important to recognize that at a more general level, available findings on the adjustment and community integration of handicapped people stress the central importance of interpersonal relationships and social skills (Bruininks, Meyers, Sigford, & Lakin, 1981; Carver & McCraig, 1974; Heal et al., 1978).

Conclusion

During the past 15 to 20 years, profound changes in education and other service programs for handicapped people have emphasized the expansion of opportunity to them and their integration into the mainstream of society. The policy of deinstitutionalization, consistent with these trends, has brought 40,000 or more handicapped people in the United States out of large institutions and into small, decentralized facilities in community settings. The eventual transfer of more people from large institutions to community living arrangements seems certain in light of court mandates, legislative actions, and prevailing administrative policy. Many of these people are of school age and exhibit difficult behavior problems and limited social skills, nevertheless, their education is the responsibility of the public schools.

Providing opportunities for the optimal development of all handicapped children requires educators and other human services personnel to adopt a perspective that encompasses the entire life space of the individual. In this chapter it has been argued that personnel in the fields of education and human services must engage in systematic approaches to the cooperative planning of intervention programs for handicapped children and youth. It was noted, furthermore, that substantial changes in attitudes and practices are needed in education to accommodate the learning and adjustment needs of handicapped children who are affected by the public policy of deinstitutionalization.

The public policies of deinstitutionalization and mainstreaming share a common purpose: the maximum social integration and development of handicapped children and youth in schools and other community settings. This purpose can be realized only if new practices in the schools are developed based upon the broad learning and adjustment needs of handicapped children, rather than upon the parochial jurisdictions of independent agencies.

References

Apter, S. J. Applications of ecological theory: Toward a community special education model. Exceptional Children, 1977, 43, 366-73.

Bachrach, L. L. A conceptual approach to deinstitutionalization. Hospital and Community Psychiatry, 1978, 29, 573-78.

Bachrach, L. L. A conceptual approach to deinstitutionalization of the mentally retarded: A perspective from the experience of the mentally ill. In R. H. Bruininks, C. E. Myers, B. Sigford, & K. C. Lakin (Eds.), Deinstitutionalization and community adjustment of developmentally disabled persons. Washington, D. C.: American Association on Mental Deficiency, 1980.

Bassuk, E., & Gerson, S. Deinstitutionalization and mental health services. Scientific American, 1978, 238(2), 246-53.

Bluhm, H. P. A vocational delivery system for the mildly retarded. In S. J. Feldman, Readings in career and vocational education for the handicapped. Guilford, Conn.: Special Learning Corp., 1979.

Bradley, V. J. Deinstitutionalization of developmentally disabled persons. Baltimore, MD: University Park Press, 1978.

Brolin, D. E., & Kokaska, C. J. Career education for handicapped children and youth. Columbus, Ohio: Charles E. Merrill, 1979.

Bruininks, R. H., Hauber, F. A., & Kudla, M. J. National survey of community residential facilities: A profile of facilities and residents in 1977. Minneapolis: Department of Psychoeducational Studies, 1980.

Bruininks, R. H., Hill, B. K., & Thorsheim, M. J. A profile of specially licensed foster homes for mentally retarded people in 1977. Minneapolis: University of Minnesota Department of Psychoeducational Studies, 1980.

Bruininks, R. H., Meyers, C. E., Sigford, B. & Lakin, K. C. Deinstitutionalization and community adjustment of mentally retarded people. Washington, D. C.: American Association on Mental Deficiency, 1981.

Bruininks, R. H., Rynders, J. E., & Gross, J. C. Social acceptance of mildly retarded pupils in resource rooms and regular classes. American Journal of Mental Deficiency, 1974, 78(4), 377-83.

Bruininks, R. H., Thurlow, M. L., Thurman, S. K., & Fiorelli, J. S. Deinstitutionalization and community services for developmentally disabled people. In J. Wortis (Ed.) Mental retardation and developmental disabilities: An annual review (Vol. 10). New York: Brunner/Mazel, 1980.

Bruininks, R. H., Williams, S. M., & Morreau, L. E. Issues and problems in deinstitutionalization in Region V (Information and Technical Assistance Project on Deinstitutionalization, Project Report No. 2). Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1978.

Bruininks, V. L. Peer status and personality characteristics of learning disabled and non-disabled students. Journal of Learning Disabilities, 1978, 11, 484-489.

Bruininks, V. L. Change in services for the handicapped through community special education. Focus on Exceptional Children, 1979, 1-9.

Butterfield, E. Some basic changes in residential facilities. In R. B. Kugel & A. Shearer

(Eds.), Changing patterns in residential services for the mentally retarded. Washington, D.C.: President's Committee on Mental Retardation, 1976.

Carver, R. B., & McCraig, E. M. Placement of the retarded in the community: Prognosis and outcome. In N. R. Ellis (Ed.), International review of research in mental retardation (Vol. 7). New York: Academic Press, 1974.

Crawford, A. L., Aiello, J. R., & Thompson, D. E. Community placement of mentally retarded persons: Clinical and environmental considerations. In H. C. Hayward & R. R. Newbrough (Eds.), Living environments for mentally retarded persons. Baltimore: University Park Press, 1980.

Damon, W. The social world of the child. San Francisco,CA: Jossey-Bass, 1977.

Dietrich, D. M., & Mehrotra, C. M. N. Handling social interactions: Teaching learning principles to special education children. Duluth Public Schools, MN, June 1978. (ERIC Document Reproduction Service No. 159 847)

Dworkin, N. E. Changing teachers' negative expectations. Academic Therapy, May 1979, 14, 517-31.

Elder, J. O. Coordination of service delivery systems. In P. R. Magrab & J. O. Elder, Planning services to handicapped persons. Baltimore, MD: Paul H. Brookes, 1979.

Eyman, R. K., & Call, T. Maladaptive behavior and community placement of mentally retarded persons. American Journal of Mental Deficiency, 1977, 82, 137-44.

Foley, J. M. Effect of labeling and teacher behavior on children's attitudes. American Journal of Mental Deficiency, January 1979, 83, 380-84.

Freeman, H. Foster home care for mentally retarded children: Can it work? Child Welfare, 1978, 57(2), 113-21.

General Accounting Office. Returning the mentally disabled to the community: Government needs to do more. Washington, D.C.: Government Printing Office, 1977.

Gettings, R. M. Hidden impediments to deinstitutionalization. State Government, 1977, 50, 214-19.

Gilhool, T. K., & Stutman, E. A. Integration of severely handicapped students: Several criteria for implementing and enforcing the integration imperative of P.L. 94-142 and Section 504. In S. Sarason, D. Geller, & M. Klaber (Eds.), Least restrictive alternatives: Moral, legal, administrative dilemmas. New York: Free Press, in press.

Glasser, W. Schools without failure. New York: Harper & Row, 1969.

Gronlund, N. E. Sociometry in the classroom. New York: Harper, 1959.

Heal, L. W., Sigelman, C., & Switzky, H. N. Community residential alternatives for the mentally retarded. In N. R. Ellis (Ed.), International review of research in mental retardation (Vol. 9). New York: Academic Press, 1978.

Hewett J. M. Education of exceptional learners (2nd ed.). Boston: Allyn and Bacon, 1977.

Hill, B. K., & Bruininks, R. H. Physical, Behavioral and maladaptive behavioral characteristics of mentally retarded people in residential facilities. Minneapolis: Department of Psychoeducational Studies, 1981.

Johnson, D. W., & Johnson, R. T. Learning together and alone--Cooperation, competition, and individualization. Englewood Cliffs, N.J.: Prentice Hall, 1975.

Jones, W. Communication: The creation of a viable human service delivery system and the institution's role. Paper presented to the New England Regional H.E.W. Developmental Disabilities Conference, Durham, N. H., June 1975.

Lakin, K. C. *Demographic studies of residential facilities for the mentally retarded: An historical review of methodologies and findings.* Project Report No. 3, Developmental Disabilities Project on Residential Services and Community Adjustment, University of Minnesota, 1979.

Lewis, M., & Thurman, S. K. Children's response to differences: Some possible implications for mainstreaming. *Exceptional Children*, March 1979, *45*, 468-69.

McCaffery, L. J. Use of sociometric techniques with mentally retarded and learning disabled children. *Group Psychotherapy, Psychodrama & Sociometry*, 1976, *29*, 111-12.

McCallum, L. W. Experiences for understanding exceptional children. *Teaching of Psychology*, April 1979, *6*, 118-19.

National Association for Retarded Citizens. *Residential services: Position statements of the National Association for Retarded Citizens.* Arlington, TX: Author, 1976.

Neisworth, J. T., Jones, R. T., & Smith, R. M. Body-behavior problems: A conceptualization. *Education and Training of the Mentally Retarded*, 1978, 265-71.

Nirje, B. The normalization principle and its human management implications. In R. Kugel & A. Shearer (Eds.), *Changing patterns in residential services for the mentally retarded*. Washington, D.C.: President's Committee on Mental Retardation, 1976.

O'Leary, J. B. *Conflict as a social action strategy for rural community health*. Minneapolis; University of Minnesota Department of Family Practice and Community Health, 1977.

Orlansky, M. D. Active learning and student attitudes towards exceptional children. *Exceptional Children*, September 1979, *46*, 49-52.

Phillips. L., Carmel, L., & Renzullo, R. *Barriers and bridges*. Sacramento, CA: California Advisory Council on Vocational Education, 1977.

Roos, P. Evolutionary changes of the residential facility. In A. Baumeister & E. Butterfield (Eds.), *Residential facilities for the mentally retarded.* Chicago: Aldine, 1970.

Schalock, R. L., & Harper, R. S. Placement for community-based mental retardation programs: How well do clients do? *American Journal of Mental Deficiency*, 1978, *83*, 240-47.

Scheerenberger, R. C. *Public residential services for the mentally retarded, 1976.* National Association of Superintendents for Public Residential Facilities for the Mentally Retarded, Madison, Wis., 1976.

Scheerenberger, R. *Public residential services for the mentally retarded*. National Association of Superintendents for Public Residential Facilities for the Mentally Retarded, 1978.

Schmuck, R. A., & Schmuck, P. A. *Group processes in the classroom* (3rd ed.). Dubuque, IA: Wm. C. Brown, 1979.

Sherrill, C. Posture training as a means of normalization. *Mental Retardation*, 1980, *18*(2), 135-38.

Shushan, R. Assessment and reduction of deficits in the physical appearance of mentally retarded people. Unpublished doctoral dissertation, University of California, Los Angeles, 1974. (University Mcirofilms No. 75-5692)

Singer, J., Bossard, M., & Watkins, M. Effects of parental presence on attendance and input of interdisciplinary teams in an institutional setting. Psychological Reports, 1977, 41, 1031-34.

Siperstein, G. N., Bopp, M. H., & Bak, J. J. Social status of learning disabled children. Journal of Learning Disabilities, February 1978, 11, 98-102.

Vance, H. R., & Wallbrown, F. Labeling of LD children and their teacher perception. Academic Therapy, March 1979, 14, 407-415.

Vorrath, H. H., & Brendtro, L. K. Positive peer cultures. Chicago, IL: Aldine, 1974.

Wehman, P. H. Toward a social skills curriculum for developmentally disabled clients in vocational education for the handicapped. In S. J. Feldman, Readings in career and vocational education for the handicapped. Guildford, Conn.: Special Learning Corp., 1979.

Organizing the School's Social Structure for Mainstreaming

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Mainstreaming begins when a handicapped student walks into the regular classroom and faces his or her new classmates for the first time. While the handicapped child may feel apprehensive and afraid, the nonhandicapped children may be experiencing discomfort and uncertainty. There is strain on both sides and no guarantee that the students will feel any more comfortable with each other as time passes. Mainstreaming carries the risk of making relationships between handicapped and nonhandicapped students worse as well as better. It is the way in which the teacher structures student-student interaction during instruction that makes the difference.

If the inclusion of handicapped students in mainstream classrooms is to provide constructive experiences for them, their nonhandicapped peers, and the classroom teachers, then teachers need to understand and follow a number of principles. These principles relate to the purposes of mainstreaming, the organization of instruction, and the ways in which teachers and students relate to each other and to their peers. In this chapter, the principles are detailed and made specific. Some of the topics they address are:

1. Building accepting and supportive relationships between handicapped and nonhandicapped students.
2. Structuring cooperative learning situations that permit handicapped and nonhandicapped students to participate in the same groups.
3. Recognizing the potential powerful influence of heterogeneity among students on

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learning and socialization.

4. Teaching students to accept responsibility for both their own learning and the learning of other members of their learning groups.

5. Teaching students the interpersonal and group skills they need to work collaboratively with each other.

6. Building collaborative relationships among teachers and eliciting administrative support for mainstreaming.

What Is Mainstreaming?

Principle I. For mainstreaming to be effective, what mainstreaming is needs to be understood. Although the goals established for handicapped children in mainstream environments encompass both academic and social/personal objectives, mainstream placements are successful only to the extent that handicapped students are integrated into constructive relationships with nonhandicapped peers. Mainstreaming may be defined as the provision of an appropriate educational opportunity for all handicapped students in the least restrictive environment, based on individualized educational plans, with procedural safeguards and parent involvement, and aimed at providing handicapped students with access to and constructive interactions with nonhandicapped peers.

Principle II. It is important to avoid adult-centrism in thinking about mainstreaming. The adult-centric educator is one who assumes that the only important relationships for the development and socialization of children are those between adult and child. When instruction and classroom life are organized around teacher-student interactions, adult-centrism is present.

Principle III. Recognize the importance for handicapped students of relationships with nonhandicapped peers. It is nonhandicapped peers who provide handicapped children and adolescents with entry into the normal life experiences of their age groups, such as going to dances, taking buses, going to movies, shopping, knowing what is "cool" and what is not, and dating. Experiences with a variety of peers is not a superficial luxury to be enjoyed by some students and not by others. Constructive peer relationships are not only an absolute necessity for maximal achievement and healthy social and cognitive development but, also, they may be the primary relationships within which development and socialization take place. Handicapped students especially need access to highly motivated and appropriately behaving peers.

Principle IV. Nonhandicapped students can obtain many important life experiences only through building and maintaining relationships with handicapped peers (Johnson, 1979). In our research, for example, we have found that when nonhandicapped students collaborate with handicapped peers on instructional tasks, the result is increased empathy, altruism, and ability to view situations from a variety of perspectives. The evidence that both handicapped and nonhandicapped students can benefit from mainstreaming is the basis for the following principle.

Principle V. Mainstreaming is not something you do for a few students but, rather, something you do for all students. The instructional procedures needed for constructive mainstreaming also benefit the shy student sitting in the back of the classroom, the overaggressive student who seeks acceptance through negative behaviors, the bright but socially inept student, and the average student who does his or her work but whom the teacher never seems to notice. Even the most well-adjusted and hard-working students benefit from mainstreaming when it is conducted with some competence.

Principle VI. Peer relationships are important for the cognitive and social development and general socialization of all children and adolescents in the following ways (Johnson, 1980):

1. Peer relationships contribute to the socialization of values, attitudes, competencies, and ways of perceiving the world. They provide expectations, models, reinforcements, and role-playing experiences that shape social behaviors, attitudes, and perspectives. In their interactions with peers, children and adolescents directly learn attitudes, values, and information which are unobtainable from adults, such as the nature of male-female relationships.
2. Peer relationships are prognostic indicators of and important influences on future psychological health. There is a relation between poor peer relationships in childhood and destructive social conduct in adolescence and psychological pathology in adulthood. Social isolation as a child and adolescent is especially related to psychological problems as an adult.
3. Peer relationships teach the social competencies necessary to reduce social isola-

tion. Constructive interactions with peers increase children's social skills and provide the opportunity to develop the interpersonal skills social isolates lack.

4. Peer relationships influence the occurrence or nonoccurrence of potential problem behaviors in adolescence, such as the use of illegal drugs. Adolescents' peer groups and friends have considerable influence on drug-use patterns as well as on other problem or possible transitional behaviors.
5. Peer relationships provide the context in which children master aggressive impulses. Peer interaction provides an opportunity to experiment aggressively with co-equals. Children who show generalized hostility and unusual modes of aggressive behavior or who are unusually timid in the presence of aggressive attack are assumed to lack exposure to certain kinds of interactions with peers, such as rough-and-tumble play.
6. Peer relationships contribute to the development of sex-role identity. Although gender typing first occurs in interactions between child and parents, the process is extended and elaborated by the peer culture. Difficulties in sexual adjustment have been found to be related to isolation from peers in childhood and adolescence.
7. Peer relationships contribute to the development of perspective-taking and the reduction of egocentrism. Both contribute to the movement to higher stages of cognitive and moral reasoning.
8. Peer relationships influence educational aspirations and achievement. Especially when students are young or have poor study skills, interaction with peers significantly increases achievement. Peers also have a great deal of influence on students' educational aspirations.

Principle VII. In order for peer relationships to be constructive influences, they must promote feelings of belonging, acceptance, support, and caring (as opposed to feelings of rejection, abandonment, and alienation). The more accepting the peer relationships, the more children and adolescents are willing to engage in social interaction, provide positive social rewards for each other, use their abilities in achievement situations, and behave appropriately in the classroom (Johnson, 1980).

The central purpose of mainstreaming is to integrate handicapped students into constructive relationships with nonhandicapped peers. Teachers provide considerable classroom assistance to handicapped students, but it is primarily through interactions with peers that handicapped students learn and develop socially and cognitively. At the same time, the interactions provide important developmental experiences for nonhandicapped students. Not all peer relationships are constructive, however. To have positive impact, they must be characterized by acceptance, support, and caring. The task for teachers, therefore, is to organize instruction so that interaction among handicapped and nonhandicapped students is maximized and leads to supportive, accepting, and caring relationships.

How Can Constructive Student-Student Interaction Be Promoted?

Mainstreaming begins with placing handicapped and nonhandicapped students in the same classroom. Placing students in physical proximity with each other does not mean, however, that the needed supportive and accepting relationships will develop.

Principle VIII. The physical proximity of handicapped and nonhandicapped students can create increases in prejudice, rejection, and stereotyping or accepting, supportive and caring relationships. Which happens depends on how teachers structure student-student interactions.

Principle IX. When a teacher wishes to mainstream handicapped students into instructional situations with nonhandicapped peers, learning can be organized in one of three ways (Deutsch, 1962; Johnson & Johnson, 1975): (a) cooperative (positive goal interdependence), (b) competitive (negative goal interdependence), and (c) individualistic (no goal interdependence).

In a cooperative learning situation, the teacher establishes a group goal and a criterion-referenced evaluation system, then group members are rewarded on the basis of their group performance. Thus, a teacher may assign students to small groups (each containing at least one handicapped student), give them a set of math problems to solve, instruct them to reach agreement as a group on the correct answer for each problem and to make sure that every group member can solve every problem, and detail the criteria of excellence which will be used to evaluate the group's work.

In a competitive learning situation the teacher establishes an individual goal and a norm-referenced evaluation system, then students are rewarded on the basis of how their work compares with the work of their classmates. Thus, a teacher gives students a set of math problems to solve, instructs them to try to outperform their classmates by solving more problems quicker, and rewards the winning students.

In an individualistic learning situation the teacher establishes an individual goal, a criterion-referenced evaluation system, and rewards students strictly on the basis of their individual performances. Thus, a teacher may give each student a set of math problems, instruct students to work alone without bothering other students and to complete as many problems as they can, and detail the criteria of excellence used to evaluate each student's independent work.

Principle X. Each way of structuring learning goals promotes a different pattern of interaction among students (Johnson & Johnson, 1975, 1978). In cooperative learning situations students exchange information, facilitate each other's achievements, encourage each other to work hard on the assignments, share each other's resources, feel accepted and supported by peers, and become emotionally involved in and committed to completing the assignments. In a competitive learning situation students avoid communicating with each other, obstruct others' efforts to achieve, discourage each other's efforts to achieve, reject and derogate rivals, and psychologically withdraw from the instructional situation. In an individualistic learning situation students are not supposed to interact at all; when they do, the interaction pattern that occurs is basically competitive.

Principle XI. Each interaction pattern affects instructional outcomes (Johnson & Johnson, 1975, 1978, 1980a, 1980b; Johnson, Maruyama, Johnson, Nelson, & Skon, in press). A great deal of research on the instructional outcomes of cooperative, competitive, and individualistic structures establishes clearly that dramatically different learning outcomes result from the different goal structures. Because considerations prevent reviewing all the research, the following major findings must suffice:

1. Cooperation promotes higher mastery, retention, and transfer of concepts, rules, and higher quality reasoning strategies than do competitive and individualistic structures. This is true for high, medium, and low ability students, all age levels, all subject areas, and all academic tasks.
2. Cooperative learning experiences promote healthier cognitive, social and physical development than do competitive and individualistic experiences. They also promote greater cognitive and affective perspective-taking abilities and higher levels of

self-esteem. Cooperative attitudes are highly related to psychological health whereas competitive attitudes are somewhat related to psychological health, and individualistic attitudes are related to psychopathology.

3. Cooperative learning experiences, compared with competitive and individualistic ones, result in more positive student-student relationships which are characterized by mutual liking, positive attitudes toward one another, mutual concern, friendships, attentiveness, mutual feelings of obligation, support and acceptance, and desire to win each other's respect. These findings hold regardless of the ethnic, social class, and ability characteristics of students. Furthermore, cooperative learning experiences promote more positive attitudes toward teachers, principals, and other school personnel than do competitive and individualistic attitudes.
4. Cooperative learning experiences promote the greater valuing of diversity among peers than do competitive and individualistic learning experiences. The valuing of diversity depends on interactions occurring within a cooperative context, students facilitating each other's achievement, and students feeling supported and accepted. Interactions like these lead to differentiated, tentative, and realistic views of other students, liking for other students, and expectations for enjoyable and rewarding interactions with them. In contrast, competitive and individualistic situations promote either obstructing or ignoring the efforts of classmates to achieve goals and, therefore, lead to simplistic, fixed, and stereotyped views of classmates, dislike or rejection, and expectations for distastful and unpleasant interactions.

These and related research findings underlie three important principles.

Principle XII. Cooperation is the only way of structuring instruction that is consistent with the intent of mainstreaming. It is cooperation that promotes the supportive, accepting, and caring relationships that are the essence of successful mainstreaming.

Principle XIII. All students, handicapped and nonhandicapped alike, benefit from cooperative learning situations. Achievement, development, and relationships are facilitated by working collaboratively with peers.

Principle XIV. Making an individual education plan (IEP) for each handicapped student does not mean that each student must be taught individually. In an IEP the plan for achievement, development, and relationships should include cooperative interaction with classmates.

Principle XV. If you want students to cooperate, you must so structure the environment. There is a set of practical strategies regular and special education teachers can use to structure cooperative learning activities in the classroom. For a more extensive discussion of such strategies, see Chasnoff (1979), Johnson & Johnson (1975), and Lyons (1980). Briefly, the procedures for structuring cooperative learning activities are as follows:

1. Specify the instructional goals of the lesson.
2. Select the most appropriate group size for the lesson. With young students the size of the group may need to be two or three members; for older students, larger groups are possible. The optimal size of a cooperative group varies according to the resources needed to complete the assignment (the larger the group the more resources available), the cooperative skills of the members (the less skillful the group members, the smaller the group should be), the amount of time available (the shorter the time, the smaller the group should be), and the nature of the task.
3. Assign students to groups to maximize heterogeneity. Teachers often wish to assign students to groups so that within each group there are students who are high, low, and average in past achievement. Three nonhandicapped and one handicapped student in each learning group is common.
4. Arrange the classroom so that group members are close together and facing each other, and so the teacher as well as members of other groups have clear access to all groups. Within the groups students should be able to see the materials they are using, talk with each other, and easily exchange materials and ideas.
5. Provide the appropriate materials. When students are first learning how to cooperate, or when some students are having problems in contributing to the group's work, teachers may wish to arrange the materials like a jig-saw puzzle and give each group member one piece. If a group, for example, were writing a report on Abraham Lincoln, and each member had materials on a different part of his life, all group members would have to contribute their materials for the task to be completed. Materials should be adapted to the limitations of the handicapped students.
6. Explain the task and the cooperative goal structure to the students. A task may be the successful completion of an assignment in math, science, or other academic

area. The cooperative goal structure includes a group goal, criteria for success, the understanding that all group members receive the same grade or reward, an understanding of the cooperative actions which the students are to use while working with one another, an emphasis on all students' mastering the assigned material, and the realization that the groups are not competing with each other. The criteria for success may be adapted to the handicaps of the mainstreamed students.

7. Observe student-student interactions. Just because the teacher instructs students to cooperate with each other does not mean that they always will do so. Much of the teacher's time in cooperative learning situations is spent observing student groups to see what problems they are having in functioning cooperatively.
8. Intervene as a consultant when necessary to help a group to solve its problems in working together effectively and to help group members to learn the interpersonal and group skills necessary for cooperating.
9. Evaluate the group products, using a criterion-referenced evaluation system. Both individual and group data should be gathered in order for groups to know when to give help and assistance to individual members. The teacher may wish to give feedback to each student and to each group.

There can be little doubt that effective mainstreaming requires the use of cooperative learning procedures. There also can be little doubt that most teachers whose classrooms include handicapped children emphasize competitive and individualistic learning procedures. Adams (1971) found that regular classroom teachers spend approximately 70% of their time lecturing to their classes as a whole. Agard (1975) observed that 76% of the instructional activities in regular classrooms occur in large groups and that most children, including those with handicaps, work individually or at least not directly with their peers. In two large-scale studies Yoshida, MacMillan, and Meyers (1976) found that handicapped students are being integrated primarily into low-track classes where the majority of children read below grade level. There is, furthermore, evidence that handicapped students are being mainstreamed into classes that are over-represented with children of their own ethnic group (Gottlieb, Agard, Kaufman, & Semmel, 1976).

For cooperative learning to be used to promote constructive mainstreaming, learning groups must be heterogeneous; students must clearly perceive that they are dependent upon one another and, at the same time, individually accountable; and students must be taught the interpersonal and group skills which enable them to work collaboratively with diverse classmates. These topics are covered in the next three sections.

What Is the Potential Power of Heterogeneity?

Principle XVI. To insure successful mainstreaming, the teacher must consciously assign students to groups so that the heterogeneity among the students is reflected in the groups. Mainstreaming requires that cooperative learning groups be heterogeneous with handicapped and nonhandicapped students participating in the same group. One handicapped student and some low-, medium-, and high-ability male and female students should be assigned to the same group. Students from different ethnic and cultural backgrounds and rural and urban students should be assigned to the same group. If the teacher is not sure how to maximize the heterogeneity in the cooperative groups, he or she can use a process of random assignment.

Principle XVII. Heterogeneity provides potential power to further learning, socialization, and cognitive and social development. Heterogeneity within a cooperative group provides different skills, talents, abilities, backgrounds, perspectives, information, personalities, and resources. The diversity enriches the learning situation. Our research indicates that high-ability students learn more and use superior strategies of reasoning to complete academic tasks when they work collaboratively with medium- and low-ability students than when they work alone. Medium- and low-ability students show the same gains when they work in heterogeneous groups. The social development of students at all ability levels benefits when the students work with heterogeneous peers rather than alone. There is a great deal of potential power in heterogeneous learning groups for furthering educational goals.

Placing diverse students within the same group does not mean that the varied resources will be perceived and used, however. Two requirements for the successful use of diverse abilities and resources are (a) that the group is operating in a cooperative context and (b) that the group members have the interpersonal and group skills they need to collaborate effectively.

Principle XVIII. It is the cooperative goal structure that unleashes the potential power of heterogeneity. It is the cooperative context that sets up the valuing of diverse resources and the increased feelings of liking and support among group members.

Principle XIX. Interpersonal and group skills multiply the power of heterogeneity. It takes a number of social skills to exchange information, perceive the value of diverse resources, and use the full potential of each group member. It is not the availability of resources that most influences achievement and other instructional outcomes in a small group but the process of information exchange. Students need to be trained to attempt, actively and nonevaluatively, to understand the perspectives and information of other group members and to employ such resources in completing assignments.

Principle XX. A number of problems arise when attempts are made to group students homogeneously (Johnson, 1979). We do not have precise enough measures to make the assignments in a meaningful way. In the past, assignment to ability tracks seemed to be based far more on social class and ethnic membership rather than ability. There is a potential for considerable misclassification in assigning students. Once they have been classified, history reveals almost insurmountable difficulties in reassigning them. There is no consistent evidence that ability grouping increases student achievement at any ability level. And there is disturbing evidence that teachers tend to underestimate the ability of students who are assigned to low-ability groups, and that low-ability groups spend less time working on academic tasks than do students in the middle- and upper-ability groups. These and other problems indicate that trying to place students in homogeneous groups requires a great deal of caution.

Are Interdependence and Accountability Really Important?

Principle XXI. The key to cooperative interaction is for students to believe that they are in a "swim or sink together" situation in which they are responsible for both their own learning and the learning of other group members. Positive interdependence means that students perceive that if any group member is to achieve his or her goal, everyone in the group must achieve the goal. Being in a cooperative group means accepting responsibility for both your own learning and the learning of your collaborators.

There are a number of ways teachers can create feelings of interdependence among students. Giving grades on the basis of the group's performance rather than on individual performance is a common method. Yet teachers are able to create the "we are all in the same boat" feeling without using group grades. Some teachers award individual grades and then add bonus points if all members of the group are above a certain criterion. Some teachers divide up materials so that no one student can complete the assignment without working closely with the other members of his or her group. Some teachers assign roles to students in the group (e.g., reader, recorder, encourager of participation by all members). A variety of methods are discussed in Chasnoff (1979), Johnson & Johnson (1975), and Lyons (1980).

Principle XXII. For each cooperative learning assignment, there must be a procedure to insure individual accountability. It is not a cooperative situation when one member of the group does all the work and the other members fail to learn the assigned material. In order for group members to give each other effective help and assistance, and in order for the teacher to provide the needed support and encouragement, the individual progress of each group must be public. A double bookkeeping system is often followed where both individual and group grades are recorded by the teacher. Teachers may give each student an individual test and then take the average to determine the group grade. A student may be picked randomly from the group to take the test with the understanding that the student's score will determine the group's grade; such a procedure maximizes the pressure among group members for everyone to master the assigned material. Each person in the group can be required to teach successfully the information he or she has learned to another student from a different group who has not yet studied the material. There are a variety of standard and creative ways in which individual accountability can be insured.

Are Skillful Collaborators Born or Made?

The interpersonal and small-group skills needed by students if they are to work effectively with each other are not genetically inherited, nor do they magically appear when they are needed. They are learned, just like any other skill. Leadership skills are learned through the same process that students learn to decode a sentence, use punctuation correctly, throw a football, or play the trombone.

Principle XXIII. Teach students how to work collaboratively with each other. Most children and adolescents in the United States perceive school to be basically competitive and, hence, they are not very good at working collaboratively with others (Johnson & Johnson, 1975). When teachers first try to use cooperative learning groups they may find that students just do not know how to provide the needed leadership, communication, trust-building and conflict-management skills which enable the group to work effectively. These skills must be taught as deliberately as are reading or math skills. In both situations, the procedures for teaching the skills include carefully defining the skill (e.g., modeling skills, discussing expected behavior, or employing a fishbowl procedure whereby one group demonstrates the skill to the rest of the class), encouraging the practice of the skill (e.g., monitoring for the behaviors, including the skill in processing sessions, praising students who demonstrate it, and creating situations where it is required), and building in perseverance so that the skill will be incorporated into the student's everyday behavior (e.g., add the skill to an observation sheet and conduct refresher sessions on it). For a more detailed discussion of how to teach skills, see Johnson,1978, 1979, 1980.

Where Are My Collaborators?

Principle XXIV. Find other teachers to help you. If you are a regular classroom teacher, find a special education teacher, a counselor, or a social worker to help you maintain handicapped children in your classroom. If you are a special education teacher, find a regular classroom teacher or two to help you integrate the handicapped students you work with into regular classrooms. A common saying in the literature on organizations is, "Never use one where two will do." This statement is especially true for mainstreaming. Your "piece of the rock," your security and support, are your colleagues.

Principle XXV. Do not try to be everything to everybody all by yourself; use your colleagues' resources. If you are a regular classroom teacher, you do not have to go back to school to get a special education degree. Form a coalition with a special education teacher. Teaching is much more fun, enjoyable, satisfying, and productive when you combine your resources with those of other teachers.

Principle XXVI. Cooperation is so powerful that teachers (as well as students) should try it. Cooperative interaction will produce for teachers the same outcomes that it produces for students.

Principle XXVII. Build collaborative relationships with other teachers. For a regular classroom teacher, the procedure for doing so is as follows:

1. Initiate contact with a special education teacher. The contact may begin at the

meeting in which the IEPs for individual handicapped students are written. It is during this meeting that the initial goal interdependence linking the regular and special education teacher is formed. It is essential that both teachers believe that they are in a "swim or sink together," "we are all in the same boat" situation.

2. Establish a division of labor, a resource interdependence that specifies each teacher's role in the mainstreaming effort. The basic role of the regular classroom teacher already has been outlined. The complementary role of the special education teacher is to work with the regular classroom teacher in teaching cooperative lessons (and thereby model to students what a collaborative relationship is like), observing students as they work, and identifying problems in the cognitive and social functioning of all group members, both handicapped and nonhandicapped. The special education teacher also can engage in such supportive activities as the following:
   - (a) Train all students in the social skills (e.g., leadership and communication) they need to function effectively as part of a cooperative learning group.
   - (b) Give special tutoring to collaborating pairs of students (one handicapped and one nonhandicapped) in how to function effectively in their cooperative learning group and to help each other to learn more and behave appropriately.
   - (c) Provide the regular classroom teacher with guidelines on how much each mainstreamed student can realistically achieve so that group scores can be adjusted to encourage maximal achievement and to avoid penalizing nonhandicapped students.
   - (d) Be available for unforeseen problems in building and maintaining accepting and supportive relationships between handicapped and nonhandicapped students.
3. In order to work together effectively, the regular and special education teachers should meet regularly to plan their joint teaching activities, evaluate the mainstreaming activities, and maintain their working relationship. At the regularly scheduled meetings, the teachers can discuss each student being mainstreamed, refer the student for further evaluation when it is warranted, and plan interventions to improve the functioning of the students' cooperative groups when it is needed. Collaboration takes planning and it needs to be evaluated. One of the major mistakes of school administrations is not to schedule time for teachers to meet with each other to plan and evaluate their collaborative activities.

4. The regular and special education teachers should reap the benefits of their collaboration; they should celebrate their successes and appreciate each other's efforts to promote more positive and supportive relationships among students. If there is one word of advice all new teachers need when they enter their profession, it is, "Do not be lonely. Find colleagues with whom to build supportive and caring relationships. Teaching is hard enough without having to do it alone."

Where Is My Administrative Support?

Administrative support is necessary for the successful collaboration of teachers and for the use of cooperative learning procedures to mainstream handicapped students into regular classrooms. It is the principal who can encourage and reward teachers for working collaboratively. It is the principal who can make schedule changes so that two teachers can observe each other, co-teach a lesson, and provide in-classroom help and assistance to each other. The principal can schedule two teachers' preparation periods so that they can plan and evaluate together.

The principal needs (a) to understand the need for and the dynamics of heterogeneous cooperative learning groups and (b) to help plan for effective collaboration between regular and special education teachers. Teachers must be able to involve principals in their plans so that the needed administrative support is provided. In addition, principals need to follow a number of rules to promote the use of cooperative learning procedures and the collaboration of teachers.

Principle XXVIII. If the principal wants collaboration among teachers he or she should structure it. The current organization of the schools at best structures individualistic relations among teachers and most commonly, probably, promotes ambiguous and ill-defined competition among teachers. Teachers often are critical and rejecting of each other; many strive to "one-up" and "put-down" each other to prove superiority and to be more popular with parents and students. To be most effective, however, teachers need the same acceptance, support, and caring from their colleagues that they create for their students in cooperative learning procedures. A principal can structure cooperative goal interdependence among teachers in a manner similar to the way that teachers structure student learning-goals cooperatively. The special requirements of mainstreaming provide the opportunity to develop day-to-day collaboration between special education and regular classroom teachers. The principal can meet with the teachers, help them to set mutual goals for successful mainstreaming, and make it clear that it is the teacher-team and not the teachers as individuals who will be evaluated. Once teachers begin to work as a team, they can be rewarded with summer writing time, favorable evaluations which are placed in their personnel files, the opportunity as a team to hold inservice sessions for other teachers in the school and district, and general approval by the principal and other administrators.

Principle XXIX. If the principal wants teachers to collaborate, he or she must provide the necessary resources. Collaborative relationships must be maintained and time must be set aside for the teacher-team to meet to conduct its work. The principal needs to provide released time for (a) planning and (b) helping team members to develop their skills in working collaboratively with each other in using cooperative learning procedures in the classrooms. Scheduling must be modified to give teachers preparation periods at the same time and to permit them to teach lessons together, to observe each other and give each other feedback, and generally to work together as a team. Other resources than time also are needed: materials, moral support; help in negotiating and solving problems with parents and other teachers; and various other resources, depending on the nature of the handicaps of the students who are being mainstreamed.

Principle XXX. If the principal wants collaboration among teachers, he or she should encourage resource interdependence among them. Whenever a regular classroom teacher has a problem with a special needs student, the principal should arrange a meeting with the appropriate special education teacher, counselor, or social worker. In working with regular classroom teachers, the principal should take the position that they do not have to become special education experts; they only have to use the expertise of other faculty members in the school and district. An astute principal may continually help teachers to see how they can make their lives easier and do better jobs by combining their resources with those of other faculty and staff. Many coalitions among teachers may be created by the principal's emphasizing the advantages of combining resources to achieve mutual goals.

Principle XXXI. The principal should be part of each teacher team. Do not be lonely! Team members will enjoy considerable success, feel a sense of accomplishment, like each other, see each other as supportive and accepting, and have a sense of comradeship with each other that significantly increases the quality of their professional lives. Thus, teams should be structured to include principals.

What Is Education's Bottom Line?

The importance of cooperative learning experiences for students goes beyond the integration of handicapped students into the regular classroom or the benefits of achievement, development, and socialization accruing to all students.

Principle XXXII. Cooperation is as basic to humans as the air we breath (Johnson & Johnson, 1975). The ability of students to work collaboratively is the keystone to their building and maintaining stable families, careers, and friendships in the future. Technical skills such as reading and math are of little use if a person cannot apply them in cooperative interactions with other people in career, family,and community settings. Nothing is more basic in education than to learn how to apply one's resources while working in harmony with other people to achieve mutual goals. The bottom line in education is mastering the procedures and skills to clarify mutuality of goals, integrate complimentary resources, and work collaboratively with others.

Summary: A Case Study

At the door of the classroom Jim stopped and glanced anxiously at the busy hum of students clearing their desks in preparation for math. The special education teacher escorting him looked intently at the child, a trace of anxiety appearing on her face as they entered the room. Jim unobtrusively slipped into a desk at the back while the special education teacher chatted for a moment with the regular classroom teacher.

Jim shyly sank down on his seat, hoping that the other students would not notice him. The regular classroom teacher announced that all students would be assigned to math groups where they would work together to solve 12 story problems. Jim was startled to hear his name called; he too was assigned to a learning group. Joining his group he studied the faces of Susan, Sam, and Sally as they jovially assembled. Their friendliness ended, however, when they realized that Jim was part of their group. "But he's learning disabled," they complained to the teacher. "How can we get a good grade with Jim in our group?"

"You'll have to help him," replied the teacher.

As Sally began to read the first story problem Jim began to move his chair away from the group. He felt panic. When Susan, Sam, and Sally turned to him for agreement with their answer he backed away from their expectant faces, and his tears began to overflow despite his best efforts to hold them in.

The teacher quietly appeared at Jim's side and asked what was wrong. "I don't want to work with anybody," he gasped, "I want to go back to my special classroom, to the students I know!"

Observing Jim's fright, the teacher suggested, "The group needs someone to record its answers. Why don't you be the recorder for the group? Susan, Sam, and Sally will appreciate the help."

After Jim was arranged in the center of the group with answer sheet and pencil, the teacher moved to where she could watch the group work. Jim clearly was taking his responsibility as recorder seriously. He listened carefully to the answers given by the other group members and wrote them down as neatly as he could. Sally especially seemed skilled in explaining to Jim how to work the problems.

The next day, observing Jim working in the group, the teacher stopped nearby. Jim smiled at the teacher and left his group temporarily. "This is the most fun I've ever had in school!" he told her.

At the end of the second week, the teacher approached the group and told them she was considering placing the students in new groups. "Please don't break up our group," Susan, Sally, and Sam pleaded. "Look how well Jim is doing. And we now know how to explain things to him. He even helps us to learn!"

References

Adams, R. A sociological approach to classroom research. In I. Westbury & A. Bellack (Eds.), Research into classroom processes: Recent developments and next steps. New York: Columbia University, Teachers College, 1971.

Agard, J. The classroom ecological structure: An approach to the specification of the treatment problem. Paper presented at the annual meeting of the American Education Research Association, Washington, D. C., 1975.

Chasnoff, R. (Ed.). Structuring cooperative learning: The 1979 handbook. Minneapolis, Minnesota: J & J Book Company, 1979.

Deutsch, M. Cooperation and trust: Some theoretical notes. In M. Jones (Ed.), Nebraska symposium on motivation. Lincoln, Nebraska: University of Nebraska Press, 1962, 275-320.

Gottlieb, J, Agard, J., Kaufman, M., & Semmel, M. Retarded children mainstreamed: Practices as they affect minority group children. In R. Jones (Ed.), Mainstreaming and the minority child. Reston, VA: Council for Exceptional Children, 1976.

Johnson, D. W. Human relations and your career: A guide to interpersonal skills. Englewood Cliffs, N.J.: Prentice-Hall, 1978.

Johnson, D. W. Educational psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Johnson, D. W. Group processes. Influences on student-student interaction and school outcomes. In J. McMillan (Ed.), The social psychology of school learning. New York: Academic Press, 1980.

Johnson, D. W. Reaching out: Interpersonal effectiveness and self-actualization (2nd ed.). Englewood Cliffs, N.J.: Prentice-Hall, 1981.

Johnson, D. W., & Johnson R. Learning together and alone: Cooperation, competition, and individualization. Englewood Cliffs, N.J.: Prentice-Hall, 1975.

Johnson, D. W., & Johnson R. Cooperation, competitive, and individualistic learning. Journal of Research and Development in Education, 1978, 12, 3-15.

Johnson, D. W. & Johnson, R. Integrating handicapped students into the mainstream. Exceptional Children, 1980, 47(2), 90-98. (a)

Johnson, R., & Johnson, D. W. The social integration of handicapped students into the mainstream. In M. C. Reynolds (Ed.), Social environment of the schools. Reston, VA: Council for Exceptional Children, 1980. (b)

Johnson, D. W., Maruyama, G., Johnson, R., Nelson, E., & Skon, L. The effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. Psychological Bulletin, in press.

Lyons, V. (Ed.). Structuring cooperative learning: The 1980 handbook. Minneapolis, MN: J & J Book Co., 1980.

Yoshida, R., MacMillan, D., & Meyers, C. The decertification of minority group EMR students in California: Its historical background and an assessment of student achievement and adjustment. In R. Jones (Ed.), Mainstreaming and the minority child. Reston, VA: Council for Exceptional Children, 1976.

Self-Management in Classrooms: Implications for Mainstreaming

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The concept of least restrictive environment and the resulting placement of increased numbers of handicapped students in mainstreamed settings can be seen as attempts to help such students to face and overcome society's challenges despite their handicaps. In large measure it is the school's responsibility to train all children and young adults to function in an independent and self-sufficient manner. Educational institutions must assume leadership in helping children to achieve this goal. The manner in which a classroom is organized and managed either enhances or hinders the movement of handicapped students toward greater independence. Classroom experiences requiring self-management provide students, both handicapped and nonhandicapped, with opportunities to develop the attitudinal, cognitive, and behavioral attributes that are necessary for them to function as responsible adults.

It is the responsibility of teachers to organize classrooms so that learning experiences can occur. The use of self-management techniques is one way to meet this responsibility. The procedures adapted to fulfill a responsibility, however, do not develop spontaneously or independently of one's philosophy. In fact, a person's philosophy influences the type of strategies that are ultimately employed. Clarification of and consistency among goals, philosophy, and procedures optimize the chances for progress toward one's goals. Therefore, prior to instituting a classroom-management system teachers should examine the philosophy upon which it is based.

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Management Philosophies

There are two methods of solving classroom-management problems: (a) adopting a philosophy founded upon teacher power and control or (b) the individual's potential for self-regulation. With the first method, teachers and administrators attempt to control behavior primarily by imposing external standards and contingencies. An extremely coercive method of management, for example, is the use of corporal punishment; according to some reports its use is increasing and it is becoming widely accepted in the United States.

With the second method, we can consider behavioral approaches. There are ample demonstrations that school-age children can improve their academic and social behavior in classrooms through various procedures, many of which consist of external controls that are imposed by teachers, parents, or peers. The trouble with this method is that children may become overly dependent on external rewards, may not develop internal control skills, may not generalize managed behavior across settings or times, and may not maintain gains. Other approaches that often are reported to be based on a humanistic framework also may be extremely controlling or manipulative but perhaps in a more subtle or indirect manner.

When teachers consciously or inadvertently manage children in the more authoritarian manner, often they expect children to speak when spoken to, to follow directions without questioning, and to be relatively passive and unassertive. The result may be that the teacher functions as the stimulus for classroom control, and when the teacher leaves the room, chaos reigns. The explicit assumptions in this philosophy are that (a) students cannot control and manage themselves, (b) students act appropriately for teachers, not for themselves, and (c) it is more fun to misbehave. Thus, children do not develop judgment and self-control strategies.

On the other hand, teachers and administrators can develop a philosophy of classroom-management on the basis of different assumptions: (a) Handicapped and other disruptive children can and should manage their own behaviors; (b) the teacher's role is to set up an environment in which he or she can teach, model, coach, and reinforce self-control and self-regulatory behaviors; and (c) such behaviors are critical to the long-term movement toward independence, self-fulfillment, and self-support by handicapped students.

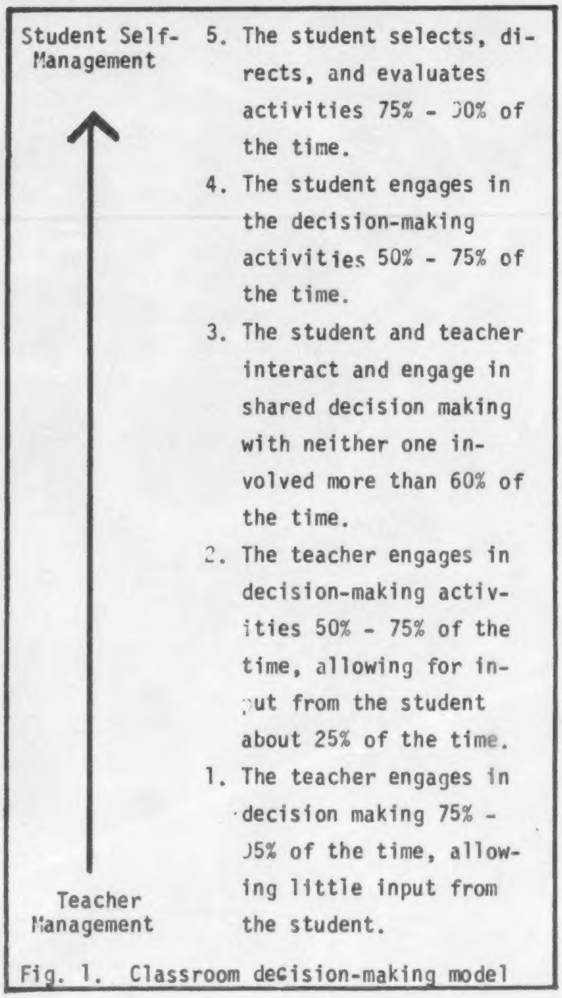
If, in the future, handicapped individuals are allowed, expected, and, in fact, held to be accountable for greater independence and self-determination, then the present education system must be concordant with this ideal and with a philosophy that values autonomy. Teachers and administrators then will operate from a set of assumptions that handicapped students have the potential and inherent resources to manage themselves. Such beliefs provide a rationale for general classroom-management procedures that foster self-management. This philosophy is proposed for all students: not only for those with handicaps and regardless of chronologic age or maturational level.

Educators are advised to deal consciously with their value and belief systems prior to selecting the design of a classroom-management system. Lack of such consideration frequently results in discrepancies between one's basic beliefs (e.g., everyone should have opportunities for self-development) and the management strategies employed (e.g., excessive restriction); in addition, inconsistent behaviors and mixed messages are sent to students. Even after examining one's attitudes, values, and perhaps, fears, and electing student self-management as a goal, the road to effective classroom self-management may be fraught with difficulties, risks, uncertainties, and setbacks. Special educators are encouraged to consider this challenging approach, however, because it embodies many potential benefits which are not all restricted to handicapped students. The teacher benefits because the management responsibility, sometimes an overwhelming burden, is shared with students. Chances for progress and more durable behavioral changes are increased when the strengths of the students are combined with the experience, skill, and commitment of the teacher. Moreover, when a child manages her or his own behavior, the teacher or other adults can spend more time on important tasks.

When educators adopt a philosophy based on student autonomy and consider arranging classroom procedures to realize it through self-management, several questions need to be considered: What is self-management? Is it successful? How does the concept relate to mainstreaming?

Self-Management Defined

Mahoney (1972) referred to self-management as any procedure leading to self-regulated behavior in which the individual is the primary agent of change and determines the direction, extent, and method of change. This definition does not infer that environmental and external contingencies do not play a part in influencing a handicapped child's behavior but that the child is an active participant in managing his or her own behavior and, whenever possible, contributes to the control of maladaptive behavior and increasing his or her appropriate behaviors. Although in the early phases of the procedures it may be necessary to impose external contingencies, the goal is for students to act as independent decision makers with regard to goals, rules, and consequences as soon as possible



5. The student selects, directs, and evaluates activities 75% - 90% of the time.
4. The student engages in the decision-making activities 50% - 75% of the time.
3. The student and teacher interact and engage in shared decision making with neither one involved more than 60% of the time.
2. The teacher engages in decision-making activities 50% - 75% of the time, allowing for input from the student about 25% of the time.
1. The teacher engages in decision making 75% - 95% of the time, allowing little input from the student.

Fig. 1. Classroom decision-making model

As a start, one can examine the extent to which handicapped students are involved in decisions about school-related activities. A scale of classroom decision making can be constructed with "1" indicating almost no student input and "5" indicating up to 90 percent student input to academic and/or social decisions. The greater the student participation, the greater the self-managing attributes of the classroom (see Fig. 1).

The extent to which handicapped students exert control over school-based activities would depend on their maturity and the type and severity of their disabilities. The immature and/or more severely handicapped youngster will require more direction than the older student or the student with a milder disability. Students should be encouraged to exercise some choice with respect to learning style, type of alternative activity, amount of time to complete activity, and/or the sequence of activities. At the same time, the teacher should involve students in selecting the particular task to be performed at a particular time, arranging time schedules, and selecting partners and materials. Too often the teacher does not provide sufficient options. Faulty assumptions or stereotypic thinking prevents him or her from providing genuine opportunities for making decisions. One must not assume that limitations in the physical or cognitive domain automatically infer disinterest in, or incapacity for, exercising preferences. In general, children have relatively few opportunities to learn and engage in self-directed activities, that is, to function as active decision makers.

Self-Control and Self-Management Techniques

Current research indicates that self-control is possible and its techniques have been advocated for handicapped students (e.g., Kurtz & Neisworth, 1976). Not only have self-control strategies been effective in increasing various task behaviors in special and regular classrooms (Ballard & Glynn, 1975; Bolstad & Johnson, 1972; Glynn, Thomas, & Shee, 1973) but, also, they appear to be as effective as similar externally imposed procedures (O'Leary & Dubey, 1979; Rosenbaum & Drabman, 1979) and hold the promise of generalizing across settings (Polsgrove, 1979).

Examining a variety of classroom behaviors Lovitt (1973) showed that many behaviors that were traditionally controlled by teachers could be administrated by the students themselves; the behaviors include selecting, scheduling, presenting, confirming, reinforcing, recording, and evaluating.

Table 1

Covert and Overt Self-Control/Management Techniques
Employed Before, During, or After Behaviors

<table>
<tr><th></th><th>Covert</th><th>Overt</th></tr>
<tr><td>Before:</td><td>Self-Instruction</td><td></td></tr>
<tr><td></td><td colspan="2">Modeling
Behavioral Rehearsal</td></tr>
<tr><td></td><td></td><td>Self-Selection of Objectives
Self-Determination of Criteria
Self-Selection of Tasks
Self-Contracting</td></tr>
<tr><td>During:</td><td>Problem Solving</td><td>Self-Monitoring</td></tr>
<tr><td>After:</td><td></td><td>Self-Confirming
Self-Monitoring
Self-Recording
Self-Selection
Self-Reinforcement
Positive Practice
Self-Punishment</td></tr>
</table>

The techniques may enable individuals to control their own behavior by arranging conditions or events both before and after a behavior (Goldfried & Merbaum, 1973; Mahoney & Thoreson, 1974). In addition, there is a broader class of procedures that lead to self-regulating behavior which is based on cognitive behavior modification (Meichenbaum, 1977) and social learning theory (Bandura, 1976). Self-control/management techniques can be classified along two dimensions: the time at which they are employed (before, during, or after a behavior) and their observability (internal/covert or external/overt) (see Table 1).

The application of self-control and self-management techniques in the mainstream setting is facilitated by examining the following list of techniques, their definitions, and related studies.

Self-instruction: The child provides directions for his/her own action, stating guidelines or steps that should be followed. Self-instruction functions as a behavioral antecedent and has been effective as a self-control procedure (Bornstein & Quevillon, 1976).

Self-instruction training permits individuals to talk to themselves. Experimental studies have reported that when children are taught to control their behavior by using self-instruction, the technique also helps them to learn academic skills (Bem, 1967). The control of behavior by hyperactive and impulsive children (Meichenbaum & Goodman, 1971; Palkes, Stewart & Kahana, 1968) is based on a strategy for teaching children self-management; Meichenbaum (1977) described the five-step sequence that includes modeling and progressive independent problem solving. When cognitive self-instruction was part of the treatment of behaviorally disturbed adolescents, a significant improvement in the performance of daily living tasks and a decrease in impulsive behavior followed (Snyder & White, 1977).

In the beginning, trainers are advised to select tasks that children can perform with success and to introduce self-instruction as part of their on-going activities. Several factors influence the success of self-instruction as a self-control technique: if children actually carry out the instruction procedure, if children have been reinforced for adhering to self-instruction in the past, and if the focus of the instruction is the behavior most subject to consequences. Self-instruction is an effective procedure and can be the sole intervention measure used by the teacher.

Problem solving: The student employs a systematic and pre-specified series of activities that lead to the development of a general strategy for solving problems. Several researchers have advocated problem solving as a method for developing children's self-control.

Table 2

A Five-Stage Problem-solving Process

Phases	Behavior
Orientation	Children are instructed to view problems as common events which require systematic action to resolve.
Problem definition and formulation	Children are taught to identify the problems, its elements, its origin and barriers to resolution.
Alternative solution generation	Children are instructed/encouraged to produce diverse alternatives to solving a problem.
Decision making	Children are shown methods for evaluating alternatives in terms of possible outcomes.
Verification	Children are taught the process of choosing and testing the most desirable alternatives in a real situation by observing its consequences and then comparing the outcomes with those predicted.

Source: T. J. D'Zurilla, & M. R. Goldfried. Cognitive processes, problem-solving and effective behavior. In M. R. Goldfried & M. Merbaum (Eds.), Behavior change through self-control. New York: Holt, Rinehart & Winston, 1973.

Five phases of the problem-solving process have been described (D'Zurilla & Goldfried, 1973; see Table 2). This process was employed with normal and disruptive preschoolers to cope with social problems. Pre-adolescent aggressive children were instructed in problem-solving techniques using written materials and audio tapes (Russell & Thoresen, 1976).

Modeling: The student observes a peer or adult model perform desired behaviors in a role-play situation or on video tape.

Rehearsal: The student imitates and practices a behavior or sequence of tasks first with cues, coaching, and assistance and later independently. Such techniques can be performed overtly or covertly. If performed covertly, students visualize images of their appropriate performance.

Bandura (1965) illustrated the use of modeling to reduce fear and increase social interactions. Other studies suggested that modeling, when combined with behavior rehearsal, can be most effective, and such procedures have been used to deal with impulsive and aggressive behaviors and hyperactive boys. Recently, it was suggested that children could serve as rule-following models for others, which is an effective, nonpunitive technique to increase their self-control (Toner, Moore & Ashley, 1978).

Self-determination of criteria: The student indicates the standard by which she or he can judge the adequacy of behavior. This technique is another method of providing stimulus control. Lovitt (1973) suggested that children improve when they are trained to set standards of performance before engaging in a task and then use those standards to judge the adequacy of their performances. This strategy seems to be most successful when it is combined with rewards, and some studies indicate that stringent criteria have more impact than lenient criteria in terms of initial gains and later maintenance (e.g., Brownell, Colletti, Ersner-Hershfield et al.,1977).

Self-selection of objectives: The student identifies his/her own goals or selects a target behavior from an array of possibilities. This technique sets the level of complexity for goals. The result is that success is often more obtainable because the student identifies an objective that is of interest as well as attainable. Ulmond and Shook (1976) were able to integrate multiple-handicapped, mentally retarded young adults into an open classroom where they planned objectives and were responsible for their own behavior.

Self-observation: The student increases her or his awareness of a behavior and systematically watches for its occurrence.

Self-monitoring/recording: The student notes the occurrences of some defined behavior according to some systematic recording connection, such as a journal, graph, checklist, or tally.

Self-evaluation: The individual observes progress and compares it against some specified performance standard; that is, the quantity or quality of the behavior is compared to either an externally or a self-determined standard in order to judge the adequacy of the behavior.

Self-control can be attained by providing behavioral consequences, such as self-monitoring, self-recording, and self-evaluating, and the necessary skills, separately or combined, can be taught to handicapped students. For example, self-monitoring was taught to moderate-to-severely-retarded children (Knapczyk & Livingston, 1973).

Self-reinforcement: The student determines the type and frequency of reinforcement and the particular instances that result in rewarding events, then the student administers such rewards contingent on responses that meet the performance standards. Self-reinforcement appears to be a powerful self-control procedure when it is used alone or in combination with other procedures (Jones, Nelson, & Kazdin, 1977). For example, Smith and Kline (1980) taught self-assessment and self-reinforcement to retarded and disturbed 6-9-year olds; complete self-management was attained and performance and accuracy increased for most subjects while disruptive behaviors declined.

Self-punishment: The student engages in some mild form of self-denial as criticism when behavior does not meet performance standards. A few studies of self-punishment (e.g., Kauffman & O'Leary, 1972) suggest that self-administered response cost can be effective either as a maintenance strategy or primary intervention. A review of relevant studies indicates that it is advisable to foster a positive rather than aversive self-control technique. For example, greater increases in academic and social behaviors were observed with self-administered rewards than self-imposed fines in the context of a classroom token economy.

Self-contracting: The student prepares a written document that specifies a plan for altering or maintaining his/her own behavior. Such plans usually include the following components, each of which may be selected by the student: objective, criteria, timetable and contingency. Several studies (e.g. White-Blackburn, Semb, & Semb, 1977) illustrate that contracts written for disturbed or disabled learners can increase appropriate classroom behaviors.

Although further systematic analysis is required to identify the limits of applicability of the preceding techniques among children and adolescents, research indicates some definite positive trends and useful strategies. Studies indicate some success with all these techniques. Currently, however, no one package guarantees success. Teachers and support personnel should analyse themselves and their students in order to design programs that are applicable to the students and the specific environments in which they function. The various techniques may be arranged in a sequential order that parallels the instructional cycle, beginning with self-selection of an objective and ending with self-reward upon completion of the objective. The use of techniques can begin at any point within this sequence. One can begin with the first step and introduce subsequent steps as mastery is demonstrated. On the other hand, one can engage in backward chaining, that is, teaching the last step first and then introducing other steps in a backward order. It is also possible to begin in the middle (e.g., self-recording) when it fits the activities normally scheduled for the class (e.g., units on counting, graphing). The important factor is the teacher's effort to use some technique that involves the student as an active participant in the classroom-management process.

Assistance in applying these techniques is available. The classroom teacher can use the services of the special education teacher or consultant, school social worker, counselor, psychologist, or other teachers whose classes appear to be self-managed. The school librarian and physical education teacher, both specialists in training youngsters to operate independently in their environments, also may provide some guidelines. Certainly a team or interdisciplinary approach can provide support and insights. Of course, as with any new endeavor, ample planning, time, practice, and feedback (based on performance data) are required to carry out the procedures and to evaluate their effectiveness.

The Teacher's Role

Self-management by the mainstreamed student depends on the regular educator's willingness to allow the student to participate in management, to make choices, and to wield the conditions required for effective learning--the goal of effective classroom management, according to Smith and Smith (1970)--include five basic features: effective learning tasks, a stable environment, opportunities to self-select, independent work, and feedback on performance. If the classroom teacher adopts this concept of classroom management then a support system is established for the handicapped student. The features advanced by Smith and Smith are consistent with the techniques described by researchers which help handicapped children to gain control of themselves. All five conditions are necessary and feasible in the mainstream setting.

The long-term goal of the teacher is to shift the balance of responsibility toward the youngster and away from the adult. This is not to say that the teacher and environment play no part in or have little influence on the child's behavior, or that the teacher may be abdicating responsibilities. In fact, the teacher's role is based on a specific set of responsibilities and requires a conscious, systematic, and consistent effort to assist children to feel, act, and behave properly and independently. Teachers who give students the responsibilities of monitoring, self-correcting, and evaluating their behaviors also should provide students with samples of acceptable and nonacceptable performances. Handicapped children also must be given opportunities to model, practice, and rehearse appropriate and self-regulatory behaviors. Overall, the teacher is the facilitator and manager of the child's efforts at self-management.

One key to success for both teacher and student are small steps; they hold small risks so that if and when a student fails the failure is not catastrophic. Small steps allow choice and risk with minimal negative consequences to a student or the rest of the class.

Procedures for Self-Management in Mainstream Settings

Although self-management is a relatively simple concept, its implementation requires the systematic application of procedures and a long-term commitment by school personnel. There follow step-by-step procedures for establishing classroom-management according to a design based on the concept of student self-management. This seven-phase sequence comprises assessment, planning, implementation, feedback, evaluation, extension, and follow-up.

Assessment

This phase consists of (a) examining existing records, (b) interviewing teachers, the target child, peers, and parents, and (c) collecting observational data in the classroom. An analysis of information from these various sources provides indicators not only of student strength and weakness with regard to self-management but, also, of the degree to which it is feasible to use the concept in the classroom environment.

The following questions should be asked of the classroom teacher: How do you feel about children acting in a self-managed manner? What risks do you foresee? For how long are you willing to experiment? Which of the student's behaviors are particularly irksome? What support or assistance may be advisable? Under what conditions may you disallow this idea?

Queries also should be directed to the child: When do you feel best managed or controlled? What circumstances seem most upsetting? What teachers or students seem most helpful? How would you feel about helping to select and plan assignments or record your own progress? Various checklists are becoming available for use by teachers and students (e.g., Fagan & Long, 1975; Rosenbaum, 1980)

Assessment also includes collecting observational data in the target child's current and prospective placement. This information identifies the current level of functioning (specifying areas of strengths and vulnerability) and indicates the rules and range of ac-

Table 3

Assessment: The Feasibility of Applying Self-Management in a Mainstream Setting

Assessment Steps

1. Interview teachers

   How do you feel about self-management?
   What risks can be identified?
   How long are you willing to experiment?
   Which behaviors are particularly irksome?
   What support or assistance is needed?
   Under what conditions would you stop?

2. Interview the child

   When do you feel best managed?
   What circumstances seem most upsetting?
   What teacher or student behaviors are most helpful?
   How would you feel about helping to select or plan assignments or record progress?

3. Observe the child

   What is the current level of self-management?
   What are the rules or limits within the class?
   What type of teacher-student interaction exists?
   To what degree is the child involved with others?
   How much time is spent on task?
   How cooperative or competitive is the class?

ceptable standards operating in the proposed regular classroom. For example, the classroom teacher may describe three to five rules operating in the room. The observer then can use a simple plus/minus system to indicate compliance with these rules during intermittent 10-minute intervals. Such observations, in addition to providing the baseline for comparing later performance, indicates the potential fit between the handicapped child, the teacher, and the other children in the classroom. The collection of observational data is stressed because although a child's file may bulge with test protocols and reports, it rarely contains classroom-based observational data that provide the framework for setting realistic management goals or strategies. For this and other steps checklists like the sample in Table 3 can be contructed.

Aspects of social environment (e.g., degree of teacher control, flexibility, structure, task orientation, and competition) must be described in order to identify students who can benefit more from one type of classroom social environment than another. For example, a student functioning on a low conceptual level but high in internal control may be better able to develop self-managed behaviors in an unstructured situation than in a highly structured and controlled classroom.

Birch and Reynolds (1977) described 12 classroom variations. They devised 5-point rating scales that yielded a classroom profile which teachers could use for self-assessment or planning. These scales are extremely useful; they cover such aspects of a classroom as teaching-learning settings and classroom-management (organization for instruction, recognizing cultural and socio-economic differences, control of and responsibility for environment, degree of structure, and rate of learning).

The social environment also may be examined with observational systems that focus on teacher-student interaction (Flanders, 1964), social group interaction (Moreno, 1953), or various student behaviors in regular classrooms (Cartwright & Cartwright, 1974). These assessment techniques also provide information on the potential of peers to effectively serve as role models, reinforcers, project team mates, and tutors. Regardless of the type of social climate, the teacher should adhere to certain guidelines: (a) No child should be allowed to withdraw permanently or for extended periods of time from the on-going activities in the class. (b) The teacher must continually make environmental arrangements so that they naturally draw the retiring child into activities. (c) No group or child should be allowed to manipulate the prime locations in the classroom because of aggression or influence.

Planning: Systematic planning prior to a mainstreamed placement is critical. The IEP should include management strategies. Both ideal and minimum standards of acceptable classroom behaviors should be identified and the goals specified. The latter should include the range of acceptable responses and times during which behaviors are appropriate. The placement of a handicapped student in a regular classroom requires that both the special educator and classroom teacher be aware of the existing standards of behavior and/or social climate in the classroom. One either can move a student to a mainstream setting when he or she conforms to the standards operating there or select a setting that is flexible and can accommodate the child with his or her problems (i.e., restlessness). The management plan should be designed by both the regular and special teachers and later should include other personnel in the work so that strategies are a result of a team effort.

Next, personnel issues should be discussed so that resource and support systems are available. For example, if the high school staff includes both a social worker and school psychologist, each should specify an area of responsibility (e.g., progress, plotting, confirming, scheduling, handling crises). In addition, potential problem issues (grading) or periods (card marking) should be identified along with suggested or possible interventions. Last, periods should be identified during which evaluations and conferences will occur, reports prepared, and decisions made. These items need clarification prior to placement so that information can be systematically collected in the regular class from the moment of entry. These procedures insure that emerging patterns of student self-control or management will be recorded so that the success of specific strategies will be known and it will be possible to make decisions about their use in the future.

Implementation: Over 10 years ago, teachers were advised that showing approval of appropriate behaviors was probably the key to effective classroom management (Madsen, Becker, & Thomas, 1968). In general, praising target behaviors and ignoring inappropriate behaviors is an excellent technique. However, closer examination of classroom management procedures, based on behavior modification and other theoretical approaches, reveals that too frequently praising and ignoring are directed at manipulating the students according to teachers' desires or values (Winette & Winkler, 1972). A better method is to use reinforcement procedures that are student-oriented, for example, allowing students substantial individual responsibility for self-reinforcement. When students with discipline or control problems generate a list of good behaviors to maintain or problems to solve independently, they can be encouraged to identify their rewards or select reinforcers (e.g., use of tape recorder, time for games or free reading, visit to library) and they can be allowed to engage in self-reinforcement at least some of the time.

Sometimes, however, misconduct may persist and penalties be required. In these cases, the teacher still can elect strategies to enhance self-management. Rather than use traditional penalties (e.g., criticism, detention, time out, exclusion) one might consider self-correction and positive practice. The technique of positive practice (Azrin & Powers, 1975) can facilitate students' having more individual responsibility for their behaviors because the individual corrects him/herself and then practices the correct type of behavior. The student describes and rehearses what should be done in the future for a problem incident and then practices the appropriate reaction. The process can be done orally or in writing and takes 5-10 minutes.

Behavioral contracting should be considered. It has been used extensively in classrooms for improving both academic and social behavior. A contract is a document that specifies desired outcomes and related behaviors and consequences for a student and teacher in order for the student to attain the outcomes. Usually, the teacher has decided on the target behaviors and reinforcers. When self-management is a goal, the responsibilities and privileges are arrived at by negotiations between teacher and student. Homme (1969) outlined a system that leads to student- rather than teacher-controlled contracts through a five-level transitional process. The more specific the contract, the easier it is to live up to it. Especially important is the listing of how responsibilities will be monitored and recorded.

Following classroom-management procedures that foster self-management requires direct instruction in each subskill area of self-control. Children must be taught, not merely told, to use self-controlling skills. Haring (1979) suggested that any curriculum for teaching the behaviors essential to self-control should take into consideration four stages: (a) basic acquisition which depends on demonstration and consequent modeling; (b) fluency, that is, learning to perform the task easily at a level that insures maintenance; (c) generalization, learning how to ascertain when to use newly acquired skills in a novel situation; and (d) adaptation, modifying the physical components of the skill to meet novel requirements.

Feedback: Feedback is information on performance which the individual uses to modify or maintain future performance. In addition, feedback on progress toward a goal often functions as a reinforcer, especially when students have experienced frequent failures. The more engaged the student is with collecting, recording, and analysing performance information, the greater is his or her sense of commitment to and responsibility for control over personal behavior.

When students have a stable and public set of criteria to which to compare the behaviors and skills they objectively record in terms of frequency or accuracy, they often tend to examine themselves from a different perspective. They see themselves as successful and respected and these views, in turn, lead to greater self-management. Whether feedback is gained independently or provided by the teacher, its effectiveness is enhanced when it is (a) positive in direction, (b) visible, (c) presented in concrete, graphic, or other illustrated form, (d) shared with significant others (e.g., peers or parents), and (e) used as a vehicle for communication and planning by student and teacher. Students should expect progress to ebb and flow and the graphs and charts to have peaks and lows, and they should understand why these variations provide the basis for mini-conferences and revisions. This assumption enhances teamwork between student and teacher. The two can discuss success, describe patterns and/or problems, and devise methods to improve performance or solve problems.

Evaluation: To judge the effectiveness of classroom and/or school-wide programs, decision makers systematically collect information on the progress of individual and groups of students. As part of the annual IEP review, classroom teachers should provide short statements on the progress toward self-management being made by each student and make certain that the information is, in fact, used to develop future programs. Although conferences on and reports of individual students are held periodically, decisions on placements and procedures may be made without the direct participation of classroom teachers. This exclusion is especially inappropriate when affective and management issues are discussed and future strategies planned.

Furthermore, attempts should be made to evaluate school or program levels. Achieving the goal of self-management for all mainstreamed children requires that information on group progress be collected, shared, and used in the decision-making process. The types of information collected should include surveys, interviews with teachers, parents, and students, and observational and other objective data. This information then can be compared and contrasted to elicit general guidelines and procedures for future use. When case-by-case procedures yield information that can be applied to larger numbers of students, the instructional process eventually becomes more cost effective.

One person in the school needs to assume the responsibility for this kind of long-term and summative evaluation. The person may be an administrator, evaluator, or psychologist. Some of the questions that should be answered on an annual basis include the following:

What number of children in the school engaged in attempts at self-management?

What degree of success was attained?

Are there distinguishing characteristics between those who did and did not progress?

What problems, barriers, and/or advantages have been evidenced?

Follow-up: Too little long-term data on the efficacy of our training efforts are systematically collected. In few areas is it as important to follow the activities of handicapped children as in self-management. Working as individual teachers and as educational policy makers, we need to know whether the self-management skills that are learned in the classroom setting (a) are used by handicapped children in other settings and (b) facilitate their success in work and community environments.

Extension: When self-management has been attained in one situation, it should be possible for the children to generalize the skill to other settings. Thus, the children must be given opportunities to learn and practice progressively complex and demanding sets of social behaviors. This means that regardless of the level of competence and self-management the children initially display as they attain increasing higher levels of mastery they can move into situations with more sophisticated requirements.

During a semester, if the student controls his or her behavior in the classroom, he/she is then required to act in a similar fashion (perhaps using the same techniques) in the gym, lunch room, playground, library, work, or home setting. During one academic year they may be trained to operate independently in a highly structured and supportive classroom and the next year they may be required to use the skills in a less structured environment.

Physical Environment

To facilitate self-management by the handicapped student in a mainstreamed setting, consideration should be given to the physical and social aspects of the environment before the placement occurs, and the current degree of self-management should dictate the way the environment is arranged.

The physical setting can either compound the student's handicapping condition or facilitate his or her progress to independent functioning. Reynolds and Birch (1977) provide a 5-point scale to assess the degree of accommodation in terms of space and facilities. Several studies indicate that small-scale changes in the physical setting of a classroom produce changes in student behavior in predictable and desirable directions (Besalel-Azrin, Azrin, & Armstrong, 1973; Weinstein, 1977). Although a reciprocal interaction exists between the individual and the environment, discussions of classroom-management strategies frequently overlook the significance and pervasive effects of physical properties surrounding the student. For the child with a handicap, they are especially important because, on the one hand, he or she may need special materials and equipment and, on the other hand, may be especially vulnerable to distractions. Moreover, the arrangement of physical properties in the environment can have a psychological effect on the degree to which self-management as a concept is communicated and appears to be a feasible and supportive technique. For example, lowering shelves so that children in wheelchairs can reach materials more readily communicates acceptance of the student in the classroom and the expectation for self-care and self-initiated activities. Prior to placement in a regular classroom, during interviews with the child and/or parent, the student's preferences and effects of space, temperature, lighting, and noise levels on the student's capacity to attend, relax, or control are estimated. In addition, information from the files is used to identify how existing resources can be matched with the student's special needs (space for a wheelchair, storage for appliances, access to bathrooms, etc.).

Consider the Subtle Effects that Spatial Reorganization May Have in the Classroom

The arrangement of the properties or space in the classroom when a handicapped child is enrolled may have a negative if not always obvious effect on the other students. Behavior of both teacher and class is patterned, and change in the stucture may be upsetting, precipitating a somewhat negative or uneasy feeling among the nonhandicapped students. Such situations, in turn, increase stress and may present unnecessary barriers to initial self-management efforts. Furthermore, children and teachers tend to become attached to different spaces, using them to manage their relationships, so there may be a hesitancy to change these established patterns. Perhaps the class members should participate in discussing changes in and rearrangements of the classroom's physical environment which are necessary to accommodate the needs of a handicapped youngster. Easing the integration process tends to prevent some management problems from developing.

Consider the Effects of Personal Distance on the Handicapped Student's Behavior

Children and adults seem to prefer to stay at a distance from persons who are different, unfamiliar, and, perhaps, feared. Some children (handicapped as well as nonhandicapped) need time and space to work into a new classroom situation. For example, disturbed children appear to be less tolerant of physical closeness and to show more variability in responding to physical approaches than do normal children. In such cases, the teacher should allow additional time and space for the integration of an emotionally disturbed student into the class and should encourage self-regulated involvement with other children.

Consider the Effects of Seating on the Potential for Student Involvement and Control

When the goal is to increase student-student involvement and prompt interactions between children, do not seat a handicapped student at the rear or side of the classroom. On the other hand, if the goal is to decrease the possibly contagious effects of disturbing behaviors, place the student at the rear or side of the room or in an isolated location.

In the classroom, students often are clustered at tables rather than seated at desks in rows. However, seating around a table may result in increased disruptive behavior because it is easier for a disruptive child to make eye contact, gain others' attention, talk, or engage in negative and distracting behaviors, such as kicking or hitting. By holding periodic discussions of the effect of seating on a student's attention, task completion, and behavior control, the teacher can help the student to develop self-awareness and self-selection.

Consider the Rinforcing Properties of Various Components of the Room

Particular furnishings (e.g., rugs, bean bag chairs) can cue the child's behavior (e.g., quiet time, relaxation) as well as reinforce the behavior.

Consider Varying the Types and Levels of Lighting According to the Kind of Activity

One type of intensity of lighting may be associated with each kind of work (e.g., group vs. independent academic). A change in lighting can cue the student so that he/she makes independent responses to the day's schedule.

Consider Arranging the Environment so that the Handicapped Child's Desired Movement Patterns Are Engineered

The shy or unassertive student may be aware that freer movement is necessary but hesitates to venture across the room. By systematically placing reinforcing materials at increasing distances from the student's area, the child may be helped to attain this objective. Conversely, providing some structure or even a symbolic restraint (e.g., tape on the floor around the desk area, string across a seat) can help the restless or wandering child to decrease inappropriate out-of-seat behavior. If reduction of movement is a self-selected goal, then the student may be the one who places tape on the floor or a string across his lap like a seat belt. The idea of a child's creating a "seat belt" for self-management is positive whereas the thought of a teacher tying a child to a chair is aversive.

Consider Supporting Attempts at Independent and Cooperative Group Work by Varying Group Size and Proximity to the Teacher

A student may find a checklist useful to monitor his/her contributions to a group project. The checklist can be used first in a one- to two-person group that is deliberately near the teacher. Then the group size can be increased in the same location or the group size can be maintained and the distance widened between the group and the teacher.

Consider that the Choice of Materials, Toys, and Games Can Influence the Social Atmosphere of the Classroom and Cue Reactions

Materials that require independent work indicate to the pupils that nonverbal behavior is desirable. Certainly a shy child benefits least from such activities if his or her skills should be improved. A passive or uninvolved youngster may need to be surrounded with games and toys that require the physical approach of and interaction with other children. The use of puppets, plays, and other structured group activities are advisable with such students.

Consider the Use of Mechanical Aids such as Stopwatches, Minute or Hour Glasses, or Large-Faced Stopclocks

Such aids have several advantages: A child can use them independently; they are relatively inexpensive; and they can be generalized to various situations. Timing devices can be used to cue the beginning or end of activities, keep students on task, signal transition periods, bring an objective end to pleasurable periods, and serve as reinforcers. In addition, the devices not only permit the self-monitoring of time-out for cooling-off periods but facilitate turn-taking. Time-management can be integrated into contracts, peer tutoring or behavioral control exercises. For example, a child may attend to a task for an increasing number of minutes each day or week and then record his or her progress on a chart.

Classroom characteristics have several dimensions that can interact and mediate the potential effects of each. The relation between task orientation and learning can vary in the classroom according to the time, space, and material that are available. For example, it may be important to arrange the physical environment and type of task according to when the child is energetic and can focus on self-management activities: early morning for some children, early afternoon, for others.

If self-management is a goal, then the physical environment should be arranged so that (a) learning materials are accessible, (b) extraneous items are cleared away to enable safe and efficient movement, (c) space is available for individual work (e.g., study carrels), (d) space is provided for students to put up and display their work and/or progress charts, (e) space is allocated for storing necessary mechanical aids or supplies (e.g., clocks, calculators), (f) space is identified for personal needs, such as emotional release, relaxation, and avoidance of distracting sensory stimulation, and (g) areas are allocated for special instruction or tutoring.

Conclusion

Prevailing practices were distinguished from preferred practices by Reynolds and Birch (1977). The latter are defined as those that are limited in use but should be adapted by more school personnel because they are advances that have been shown to be appropriate, effective and feasible. In terms of classroom management, the prevailing practices appear to be those that rely heavily on teacher control. The preferred practice for classroom management, especially in mainstreamed settings, is self-management. The philosophy of a self-management system is consistent with the concept of least restrictive environment, and there has been sufficient advances for educators to consider the concept as a viable option for the management of mainstreamed classrooms.

References

Azrin, N. H., & Powers, M. A. Elementary classroom disturbances of emotionally disturbed children by positive practice procedures. *Behavior Therapy*, 1975, *6*, 525-34.

Ballard, K. D., & Glynn, T. Behavioral self-management in story writing with elementary school children. *Journal of Applied Behavior Analysis*, 1975, *8*, 387-98.

Bandura, A. Behavior modification through modeling procedures. In L. Krasner & L. P. Ullman (Eds.), *Research in behavior modification*. New York: Holt, Rinehart & Winston, 1965.

Bandura, A. *Social learning theory*. Englewood Cliffs, N.J.: Prentice-Hall, 1976.

Bem, S. L. Verbal self-control: The establishment of effective self-instruction. *Journal of Experimental Psychology*, 1967, *74*, 485-91.

Besalel-Azrin, V., Azrin, N. H., & Armstrong, P. M. The student-oriented classroom: A method of improving student conduct and satisfaction. *Behavior Therapy*, 1977, *8*, 193-202.

Bolstad, O. D., & Johnson, S. M. Self-regulation in the modification of disruptive classroom behavior. *Journal of Applied Behavior Analysis*, 1972, *5*, 443-54.

Bornstein, P. H., & Quevillon, R. P. The effects of a self-instructional package on overactive boys. *Journal of Applied Behavior Analysis*, 1976, *9*, 179-88.

Brownell, K. D., Colletti, G., Ersner-Hershfield, R., Hershfield, S. M., & Wilson, G. T. Self-control in school children: Stringency and leniency in self-determined and externally imposed standards of behavior. *Behavior Therapy*, 1977, *8*, 442-55.

Cartwright, C. A. & Cartwright, G. P. *Developing observation skills*. New York: McGraw-Hill, 1974.

D'Zurilla, T. J., & Goldfried, M. R. Cognitive processes, problem-solving and effective behavior. In M. R. Goldfried & M. Merbaum (Eds.), *Behavior change through self-control*. New York: Holt, Rinehart & Winston, 1973.

Fagan, S., & Long, N. *Teaching children self-control: Preventing emotional and learning problems in the elementary school*. Columbus, Ohio: Charles C. Merrill, 1975.

Flanders, N. A. Interaction analysis in the classroom: A manual for observers. Ann Arbor, MI: University of Michigan, 1964.

Glynn, E. L., Thomas, J. D., & Shee, S. M. Behavioral self-control of on-task behavior in an elementary classroom. *Journal of Applied Behavior Analysis*, 1973, *6*, 105-13.

Goldfried, M. R., & Merbaum, M. *Behavior change through self-control*. New York: Holt, Rinehart & Winston, 1973.

Haring, N. G. Reply to Fagen-Long self-control curriculum. *Behavioral Disorders*, 1979, *4*(2), 92-94.

Homme, L. *How to use contingency contracting in the classroom*. Champaign, Ill,: Research Press, 1969.

Jones, R. T., Nelson, R. E., & Kazdin, A. E. The role of external variables in self reinforcement. *Behavior Modification*, 1977, *1*(2).

Kaufman, K. & O'Leary, K. D. Reward, cost, and self-evaluation procedures for disruptive adolescents in a psychiatric hospital school. *Journal of Applied Behavior Analysis*, 1972, *5*, 293-309.

Knapczyk, D. R., & Livingston, G. Self-recording and student teacher supervision variables within a token economy structure! *Journal of Applied Behavior Analysis*, 1972, *5*, 293-309.

Kurtz, P. D. 'eisworth, J. T. Self-control possibilities for exceptional children. *Exceptional Children*, Jan. 1976, 212-17.

Lovitt, T. C. Self-management projects with children with behavioral disabilities. *Journal of Learning Disabilities*, 1973, *6*, 135-50.

Lovitt, T. C., & Curtiss, K. A. Academic response rate as a function of teacher and self-imposed contingencies. *Journal of Applied Behavior Analysis*, 1969, *2*, 49-53.

Madsen, C. H., Jr., Becker, W., & Thomas, D. R. Rules, praise, and ignoring: Elements of classroom control. *Journal of Applied Behavior Analysis*, 1968, *1*, 139-51.

Mahoney, M. J. Research issues in self-management. *Behavior Therapy*, 1972, *3*, 45-63.

Mahoney, M. J., & Thoresen, C. E. Self-control: Power to the person. Monterey, CA: Brooks-Cole, 1974.

Meichenbaum, D. *Cognitive-behavior modification: An integrative approach*. New York: Plenum Press, 1977.

Meichenbaum, D., & Goodman, J. Training impulsive children to talk to themselves: A means of developing self-control. *Journal of Abnormal Psychology*, 1971, *77*, 115-26.

Moreno, J. L. *Who shall survive? Foundations of sociometry, group psychology, and sociodramas* (2nd ed.). New York: Random, 1953.

O'Leary, S. G., & Dubey, D. R. Applications of self-control procedures by children. A review. *Journal of Applied Behavior Analysis*, 1979, *12*(3), 449-65.

Palkes, H., Steward, W., & Kahana, B. Porteus maze performance of hyperactive boys after training in self-directed verbal commands. *Child Development*, 1968, *39*, 817-26.

Polsgrove, L. Self-control: Methods for child training. *Behavior Disorders*, 1979, *4*(2), 116-30.

Reynolds, M. C., & Birch, J. W. *Teaching exceptional children in all America's schools.* Reston, VA: Council for Exceptional Children, 1977.

Rosenbaum, M. A schedule for assessing self-control behaviors: Preliminary findings. *Behavior Therapy*, 1980, *11*, 109-21.

Rosenbaum, M. S., & Drabman, R. S. Self-control training in the classroom. A review and critique. *Journal of Applied Behavior Analysis,* 1979, *12*, 3, 467-85.

Russell, M. L., & Thoresen, C. E. Teaching decision-making skills to children. In J. D. Krumboltz & C. E. Thoresen (Eds.), *Counseling methods*. New York: Holt, Rinehart & Winston, 1976.

Shapiro, E. S., & Klein, R. D. Self-management of classroom behavior with retarded/disturbed children. *Behavior Modification*, 1980, *4*(1), 83-97.

Smith, J., & Smith, D. *Classroom management*. New York: Learning Research Associates, 1970.

Snyder, J., & White, M. The use of cognitive self-instruction in the treatment of behaviorally disturbed adolescents. Unpublished manuscript, Wichita State University, 1977.

Toner, I. J., Moore, L. D., & Ashley, P. K. The effect of serving as a model of self-control in subsequent resistance to deviation in children. *Journal of Experimental Child Psychiatry*, 1978, *26*(1), 85-91.

Ulmond, W. F., & Shook, G. L. A method for developing and maintaining high rates of performance in an open classroom setting. In T. A. Brigham, R. Hawkins, J. W. Scott, & T. F. McLaughlin (Eds.), *Behavior analysis in education*. Dubuque, Iowa: Kendall/Hunt, 1976.

Weinstein, C. S. Modifying student behavior in an open classroom through changes in the physical design. *American Educational Research Journal*, 1977, *14*(3) 249-62.

White-Blackburn, G., Semb, S., & Semb, G. The effects of a good behavior contract on the classroom behaviors of sixth-grade students. *Journal of Applied Behavior Analysis*, 1977, *10*, 312.

Winett, R. A., & Winkler, R. C. Current behavior modification in the classroom: Be still, be quiet, be docile. *Journal of Applied Behavior Analysis*, 1972, *5*, 499-504.

Publications

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Thiagarajan, S., Semmel, D. S., & Semmel, M. I. *Instructional development for training teachers of exceptional children: A sourcebook.* (1974)

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Spicker, H. H., Anastasiow, N. J., & Hodges, W. L. (Eds.). *Children with special needs: Early development and education.* (1976)

Stevens, L. "Mainstreaming training systems, materials, and resources: A working list." (A mimeographed, periodically revised listing of training systems and other "mainstreaming" resources.)

IN PRESS

Jones, R. L. (Ed.). *Attitudes and attitude change in special education.* Reston, VA: The Council for Exceptional Children.

Ross, M., & Nober, L. (Eds.). *Individualized educational programing for hard-of-hearing children.* Reston, VA: The Council for Exceptional Children.

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